ROBERT H. RICHARDS, '68
Elected President January 27, 1876

CHARLES R. CROSS, '70
Elected Secretary January 27, 1876

THE FIRST PRESIDENT AND SECRETARY OF THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY
ALUMNI ASSOCIATION

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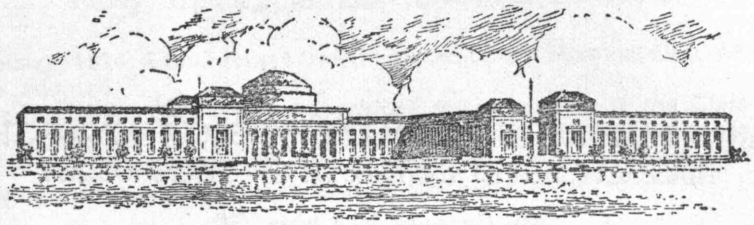

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EDITORIAL

THE Alumni Association of Technology has closed one year of high achievement and is beginning another. During the past school year it raised four million dollars, it published a new and complete directory of past Technology men, it published a War Record of extraordinary completeness and value, it held an All-Technology Reunion which will undoubtedly have a great effect on the progress of this year and of future years. It saw launched, under the auspices of the Technology Clubs Associated, a new plan for co-operation between education and industry which its sponsors believe offers a solution of present difficulties. It saw launched, under direction of the Institute itself, an organization which shall draw our school in particular very close to its supporting industries. It is on the point of choosing a general manager for all alumni activity, who shall keep the organization everywhere and always alive and useful. It will perhaps have a voice, individually if not as a body, in the necessary and imminent choice of a new president for the Institute. Its task this coming year is no less than it was a year ago.

For this reason we can perhaps best judge our possibilities today by looking back at our origin. From what little things the Alumni Association grew, what a little time ago it began its work! Its first president and secretary are with us still, their faces familiar to all. Its first secretary has written for us, with his accustomed care and accuracy of detail, the story of those early days, the beginning of the Alumni Association of Technology. As a historical document it is of great value; as food for thought on the problems of today it should be inspiring and helpful.

EARLY HISTORY OF THE ALUMNI ASSOCIATION OF THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

By Charles R. Cross, '70

It is only within comparatively recent years that the alumni of our colleges have come to play a leading part, perhaps I should say the leading part, in their educational development. It was in 1878, ten years after the graduation of its first class, that a graduate of the Institute was elected to be a member of its corporation, but not until 1906 that its alumni as such were given a representation as term members in that body where their services have since proved to be of inestimable value. But at a very early date in its existence the Alumni Association came to be of great service to the Institute, for which reason it has seemed desirable to a number of those who have long been intimately connected with both, that some account of its origin and early history should be put into more accessible form than is now the case. The present paper is intended to constitute a sketch of the principal matters with which the Alumni Association concerned itself from its inception through the first twenty-five years of its existence or thereabouts, with such reference to later activities as may be desirable because of their relation to earlier work.

Preliminary Steps and Organization

The earliest move toward the formation of such an association originated with the Class of 1873. The records of the class association of that year as communicated to me by Mr. S. E. Tinkham, secretary, contain the following:

"At the annual meeting of the Association of the Class of 1873 held at the Parker House on January 23, 1874, Mr. Blodgett presented the subject of an Alumni Association of the Massachusetts Institute of Technology and advocated action by the class association in reference to such an organization, and in furtherance of this purpose offered the following motion, which after a short discussion was adopted: 'Moved, That a committee of three be appointed to consult the classes and students who have graduated from the Institute and see what action they will take, if any, in regard to the formation of an Alumni Association of graduates of the Massachusetts Institute of Technology and report on the matter at the next annual meeting of the class association.' Messrs. William A. Kimball, George W. Blodgett and Webster Wells were elected to serve on that committee."

The members of the Class of 1873, as all the other Institute graduates, were of course greatly scattered after graduation, but the subject in question was considered carefully during the next two years, and in

January, 1876, a final report was presented at the class meeting, which was adopted.

In October, 1874, the chairman of the committee of the Class of 1873 above referred to sent a printed circular to each living graduate of the Institute whose address was known, of which the following is a copy from the manuscript records of the Association:

"21 Summer Street, Boston,
October, 1874.

Dear Sir:

The Massachusetts Institute of Technology being now nearly ten years old and having about ninety graduates, it seems desirable that steps should be taken to form an Alumni Association. With this object in view, a committee has been appointed by the class association of 1873. The committee wish to obtain, if possible, an expression of opinion from each of the graduates; therefore your answers are requested to the following:

1. Whether in your opinion an Alumni Association is desirable?
2. If so, why? If not, why?
3. Whether the first meeting of the alumni should be held during the next midwinter vacation in January, or at the beginning of the summer vacation in June?

Yours respectfully,
WILLIAM A. KIMBALL, *Chairman of Committee.*"

The replies to this letter indicated so strong an interest in the subject that the class committee of 1873 issued a call for a meeting of the graduates of the Institute for the purpose of taking definite measures toward the formation of an Alumni Association, to be held on January 29, 1875, at 2 P.M.

In response to the call such a meeting was held in the physical lecture room, in what is now the Rogers Building, twenty-seven graduates being present. Professor Robert H. Richards, '68, and Mr. William A. Kimball, '73, were elected president and secretary, respectively. The meeting was addressed by Mr. Kimball who spoke as follows:

"Mr. Chairman: Before completing our organization it seems advisable we should consider why we are to form an association and the objects that we have in view. I wish to offer a few suggestions, not because my personal opinion is particularly valuable, but as it is the result of the opinions of those who have written to the committee on this subject, and many of the writers are not here to speak for themselves.

An Alumni Association is more especially desirable for us than it is for college graduates, inasmuch as we do not, like them, further continue our preparation for work by means of law schools, medical colleges, etc., but at once make a practical use of our Institute training. We naturally, therefore, take a more immediate interest in our Alma Mater and are sooner qualified to estimate the value of her course of study. It is good that we should regard the pleasure of meeting together socially,

but this is not our first object. It seems to me that we owe a duty to education, to science in general, and to the Institute of Technology in particular, that we can only pay by strengthening its hands and increasing its influence in every possible way. This we shall do at once by forming an Alumni Association, and limiting the membership to those who have been endorsed by the degree of the faculty. We show them that the degree of the Institute means something to us, and we in some measure discourage the idea, too prevalent in the school, that it makes little difference whether or not a man takes the required course. If we find by experience that the regular courses are not good, let us advise with the authorities — not encourage a disregard of their requirements.

The elder alumni can also directly benefit the Institute by doing what lies in their power to furnish graduates with work; by recommending them for vacancies where they have influence, and by informing them, through the secretary of the Association, of such openings as they know of in different parts of the country.

I think, gentlemen, that the alumni may in future give an immense help to the young graduates in their start in life. In so doing they will assist professors, they will assist the cause of scientific education, they will furnish a strong motive for young men to go to the Institute of Technology and to do their best while there.

In forming this Association then, and in organizing it, we must keep clearly in mind the fact that we are engaged not so much in a work of pleasure, as of duty, and that our aim is to help our professors and to advance science by increasing the efficiency of that school to which we owe so much."

The unanimous feeling of the alumni present at the meeting was that immediate steps toward the formation of an Alumni Association should be taken, and a committee consisting of Messrs. Cross, Richards, and Kimball was appointed to draw up a constitution. Much discussion ensued as to the provisions which this proposed constitution should embody.

Of the twenty-seven alumni present at this meeting thirteen are still living.

At a later meeting, March 17, 1875 (of which Mr. Richards was chairman and Mr. Cross secretary), the draft of the proposed constitution submitted by the committee was considered at much length article by article and various changes were made, after which the document as it had been amended was adopted without dissent.

The following are the three most vital articles of the constitution as then adopted. The other articles relate to matters of officers and their duties, elections and like subjects.

"Article I. This Society shall be called the Alumni Association of the Massachusetts Institute of Technology. Its object shall be to further the well-being of the Institute and its graduates by increasing the interest of members in the school and in each other.

Article II. All graduates of the Massachusetts Institute of Technology shall be entitled to the rights of membership.

ARTICLE VI. Every member shall pay to the treasurer the sum of one dollar, annually, to defray contingent expenses."

Except as regards the membership of the Association, which will be considered shortly, the provisions embodied in these articles have remained substantially unchanged up to the present. Article VI relating to dues is now transferred to the By-Laws. In Article I in the statement of the object of the Association the word "increasing" is replaced by "fostering."

It is interesting to note that the expression in Article I, as it stands at present, necessarily modified from the original restricted form in view of the enlarged membership of the Association, so as to read, "Its object shall be to further the well-being of the Institute," omits the next following words "and its graduates" of the earlier form, which carries Article I back to precisely the wording used in the first draft of the tentative constitution as sent to the alumni for consideration, March 8, 1875.

In the afternoon and evening of January 27, 1876, the first annual meeting and dinner of the Association were held, the former in the physical lecture room, the latter at "Young's." Officers for the ensuing term of two years were elected, R. H. Richards, '68, president, I. S. P. Weeks, '71, vice-president, C. R. Cross, '70, secretary (and treasurer), Messrs. C. F. Allen, '72, F. H. Williams, '73, executive committee.

At the close of the dinner, which was the first of a series that has continued down to the present time, a brief address was made by President Richards, calling the attention of the alumni to the value which their consideration of the work of the school might have to those responsible for its guidance. Also the following resolution was unanimously passed and the president directed to transmit it to Professor Rogers.

"Whereas, the Alumni Association of the Massachusetts Institute of Technology has perfected its organization, and thus completed the final step in the plan of the founder of the Institute, who with so much zeal and unselfishness devoted the best years of his life to its cause:

Resolved, that we take this occasion to express our love and gratitude to Professor William B. Rogers, the father of this great and worthy enterprise."

This resolution was communicated to Professor Rogers in a letter from Professor Richards, as follows:

"Institute of Technology, February 7, 1876.

My dear Professor Rogers:

I have received the enclosed resolve, which was made at the annual dinner of the Alumni Association, and take great pleasure in transmitting it to you.

I can assure you that the meeting was made up of men who felt warmly the advantages they had received from the school, and not of men who came solely for the pleasure of social intercourse, as is often the case at alumni meetings. The welfare of the Institute was more prominent than anything else in the discussions which took place. The

Alumni Association now has one hundred and twenty-two names on its list, which includes all the regular graduates from the school.

The purpose for which the Association was organized is to keep up the interest of its members in the school and in each other, as expressed in the constitution. But the feeling seems to prevail that in many ways the Association may prove of real benefit to the school and to its members. The Association has at present two methods of reaching its members, viz., a directory and an annual meeting.

A directory is to be published annually. This will contain for each member of the Association, first the history since graduating; second, the present occupation; third, the address. This will enable the older men to select employees from the younger, and the younger to seek employment from the older. And it will also enable the Institute officers, whether of government or instruction, to judge of the experience and attainments of the graduates.

A meeting is to be held annually, at which it is expected that the prevailing policy and condition of the school will be discussed with the utmost freedom.

We hope that our aims will merit your approval.

Very sincerely yours,

ROBERT H. RICHARDS.

President, Alumni Association."

To this, the following reply was received:

"117 Marlborough Street, Boston,
February 19, 1876.

Dear Professor Richards:

The resolve of the Alumni Association of the Massachusetts Institute of Technology, enclosed in your kind letter of the seventh, has given me a deeper satisfaction than I can find words to express, assuring me, as it does, not only of the kind appreciation by the alumni of what I have endeavored to accomplish in connection with our Institute, but of that warm personal affection which must always be regarded as one of the highest rewards of the labors of a teacher.

To those of the Association whom in the early years of the Institute it was my privilege to know as pupils, I need hardly say that my interest as their instructor was soon ripened into a sentiment of personal attachment, and that the success and distinction they have already won in their several pursuits has become to me a source of constant satisfaction and pride.

To the alumni generally I would beg you to present an expression of my warmest interest in their professional and scientific success, together with my congratulations on the distinguished position among the scientific schools of the country which our Institute continues to maintain.

I hail with pleasure the organization of the society of which you have been chosen president, believing that it cannot fail to promote the educa-

tional and scientific objects for which the Institute was established, and for which its government and teachers have so assiduously labored.

Accept, dear Professor Richards, my thanks for your interesting letter, and believe me with warm esteem,

Yours faithfully,

WILLIAM B. ROGERS."

With this high approval of Professor Rogers the Alumni Association, now numbering one hundred and twenty-two members, was well started upon its career of usefulness.

This being the case, as a sequel to what has been said regarding its beginnings, the object of this sketch will best be attained by a statement of actions and circumstances which are or have been of particular interest. The *Alumni Association Reports* issued in print from year to year up to 1906 constitute a clear, full summary of its procedure up to that date.

Only a few collected copies of these, however, are known to exist. The particulars of the earlier meetings are to be found only in the manuscript records of the secretary. Reports of its proceedings subsequent to 1906 will be found in the TECHNOLOGY REVIEW.

It is to be noted that reports of the annual meetings of the Association subsequent to that of January, 1886, are found in the *Annual Report* bearing the date of the next succeeding year, the time of the meetings having been changed from January to December.

MEMBERSHIP

An important question arose to be decided at the very outset of the consideration of the constitution of the Association, the question of membership, whether this should be limited to actual graduates of the school, alumni in the strict sense, or whether all those who were enrolled in the several class associations should be eligible likewise. This was considered very carefully and to a greater extent than would appear from the formal records. Two opposite views were presented. There were many former students who were greatly valued by their classmates but who had not taken the degree, having left too early, and others who had failed to fulfil the requirements. It might well seem wise not to exclude such. On the other hand there had been what at the present time would seem a strange negligence on the part of some who appeared to attach but slight value to graduation. In the earliest days the novel form of the degree then given, "Graduate of the Institute," was not attractive, especially after the establishment of another Institute of Technology, the Stevens Institute, though this form was changed to "Bachelor of Science" in 1872. Also an early requirement, abolished in 1874, that the thesis should be prepared and presented subsequently to the close of the fourth year as the first fruits of the practical work of the candidate, was often very difficult to satisfy. To a majority of the graduates it seemed that it was important that this slighting of the degree should be

discouraged and that such a result would be furthered if the graduates themselves should aid the faculty by a strict limitation of the membership of the Association to actual graduates of the Institute. Furthermore, it was believed that any considerations regarding the work of the Institute which either directly or indirectly the Association might wish to present to the faculty or corporation would have much more weight if coming from a body of graduates than from a composite one. The idea of establishing a second class of members, as associates, though not overlooked, was not considered to any great extent as it was believed, and probably correctly at that time, that this would not be cared for by those to whom it would apply. The practical objection was also felt that in such a case there would be difficulty in establishing proper limits within which non-graduates should be chosen. It was felt by all, however, that such former students as were likely to be interested should be welcomed to all gatherings of the Association which were of a social character, though it was considered wise for several reasons that such invitations should go from the executive committee. In 1882 a report from the committee regarding the extension of that custom was presented and it was discouraging to the members of the Association to learn that although a considerable number of invitations to the last preceding gathering had been sent out by the executive committee to non-graduates who were thought to be interested, "but few of these even acknowledged the invitation and fewer still attended the reception."

In 1882 a proposition was also made to make eligible to membership all persons holding a "Certificate of Proficiency of the Institute."* A general discussion of the whole subject ensued, as a result of which the executive committee was directed to report at the next annual meeting whether changes in the constitution were desirable in the direction of enlargement of membership.

In 1883 the executive committee, in accordance with these instructions, reported that "Without in any way overlooking the arguments that may be advanced in favor of such a procedure, the Committee feels that such a change in Article 2 of the constitution [as to admit others than graduates to membership] would not be conducive to the best interests of the Association."

The subject was again brought up for consideration at the annual meeting of 1886, when a committee was appointed to consider the question. The committee consisted of the president, Mr. H. A. Carson, '69, the secretary, Mr. G. F. Swain, '77, ex-officiis, and Messrs. C. S. Ward, '72, F. H. Williams, '73, and G. W. Blodgett, '73. The committee was divided in its opinion, and both a majority report opposing a change and a minority report favoring one, which provided for an amendment enlarging the membership with somewhat rigid restrictions, were drawn

*In the annual catalogue for 1866–67 and for a number of years thereafter, there was a statement that besides the degree of the Institute "there will be given certificates of attainment in special subjects to such students as on examination are found to have attained the requisite proficiency in them." At that time the examinations for the degree covered at first all the subjects taken in the whole four years of the courses, afterwards changed to the last two years.

up and a copy was sent to each alumnus with a request for an expression of his opinion regarding the proposition.

The committee reported at the next annual meeting that of those who replied 135 favored the majority report, i. e., were against a change, and 15 favored the minority report. The majority report was thereupon adopted by the Association.

In 1892 it was moved at the annual meeting that the privilege of membership in the Association should be given to all persons who had been connected with the Institute as instructors for not less than four years, but the motion failed to pass.

The subject of enlargement of membership was again brought up for consideration at the annual meeting of 1895 when the executive committee presented to the Association a recommendation for the appointment of a special committee of five of which Professor H. W. Tyler, '84, was chairman, to consider "an amendment to the constitution providing for associate membership of former students not graduates."

The committee made an exhaustive study of the whole subject and two years later, at the annual meeting in December, 1897, the chairman presented a report which was so convincingly in favor of the change recommended by it that it was adopted without discussion by a unanimous vote.

The constitution adopted in accordance with this report provided for the establishment of two new classes of members, associate and honorary. The first of these was open to former students, the second to members or ex-members of the corporation or faculty of the Institute, to be elected by the executive committee.

The report, which in view of its results is probably the most important of any presented to the Association subsequent to its earliest years of existence, is printed in the *Annual Report of the Association*, bearing date 1898. Except for the length of the present article it might profitably be printed in full.

The present qualifications for membership in the Association are those established in the Constitution as adopted in 1909 and amended in 1911. Two classes of members only are recognized, regular and honorary. The former comprises the regular and associate members under the constitution of 1897, to whom are added graduates and other former students of the discontinued School of Mechanic Arts. As previously, the executive committee is vested with the power of election for those not holding a degree from the Institute. The conditions of honorary membership remain unchanged from those of 1897.

Alumni Committee on the School

As has been explained previously, at the time of the foundation of the Alumni Association, the hope was earnestly expressed that it might be of service to the school in the improvement of its courses of instruction and in aid of the students in one or another way. There was no authorized manner, however, in which considerations of this kind could

be presented to the faculty or the corporation, or indeed how any other than purely personal opinions could be communicated to the president. The institution was too young to expect to be represented on a corporation composed of life members, and as already stated it was not until nearly thirty years later, 1906, that term members were provided for. Nor were there any visiting committees of the corporation to the various departments appointed until 1884-85. After some informal consideration by the officers of the Association and others, it was decided to propose the appointment of an Alumni Committee on the school which should report annually upon such subjects connected with it as should seem advisable. This project was brought before the Association at the annual meeting of January 18, 1877, by the presentation of the following motion by F. E. L. Beal, '71:

"Resolved: That a permanent committee on the school be appointed from the alumni, whose duty it shall be to keep itself informed as to the courses of instruction, management and policy of the school, by visiting recitations and lectures, and by communicating with professors, students, graduates and members of the corporation; and to render a critical report on the same at each annual meeting."

The motion made provision for the number of members of the committee, three, and for the mode of choosing them. After the amendment of the motion as to certain of these particulars, it was adopted without dissent.

In expectation of the action just described, the executive committee had planned a presentation of a series of reports upon the several courses of instruction in the school, written mostly by those in charge or otherwise holding responsible positions in relation to them. These were read and discussed at the meeting of January 18, and also at a second meeting held about a week later. The instruction in civil, mechanical and mining engineering, chemistry, physics, mathematics, drawing and descriptive geometry, English and logic, together with the general policy of the school, were considered at length. The discussion was highly illuminating, frank but always kindly. Even as summarized in the manuscript report of the secretary, after the lapse of more than forty years, it makes interesting reading. Indeed a discussion participated in by H. A. Carson, '69, C. Whitaker, '69, W. R. Nichols, '69, H. M. Howe, '71, C. F. Allen, '72, C. S. Minot, '72, F. H. Williams, '73, could not have failed to be stimulating.

The questions then debated are, some of them, not yet fully settled and perhaps never will be. A criticism made by a very recent graduate, an assistant, may well be kept in mind. He thought, "one of the great difficulties in the way of the Institute to be that it had no fixed policy. It did not seem to know what it really wanted to do, whether to give a broad and high or a narrow and low grade of education." "It does first one, then the other, and the public do not know what to expect."

With scarcely an exception, the speakers pleaded against any curtailment of scientific instruction or diminution in breadth of training, which was feared by many because of the introduction of a new course

(though not leading to a degree) in "Practical Mechanism" or shopwork in 1876-77. This difficulty was removed, however, when the subject came to the full consideration by the faculty of the establishment of a new and lower grade School of Mechanic Arts as originally suggested by Professor Wing, which was entirely separate from the School of Industrial Science. This school was in operation until May, 1888, when it was discontinued, as the special service which it aimed to render to the community was expected shortly to be sufficiently met in the public schools and elsewhere.

The duties of the committee as laid out were found, on attempting to put them into effect, too onerous and in other ways difficult to fulfil completely. A year later, at the annual meeting of 1878, held January 24, the paragraph of the Resolution of 1877 establishing these functions was amended so as to read as follows: "Resolved: That a permanent committee on the school be appointed from the alumni whose duty shall be to keep itself informed as to the courses of instruction, management and policy of the school and to render a report of the same at each annual meeting." The requirements as thus stated remained unchanged until the committee was discontinued, on the reorganization of the Association some thirty years later.

The wording of the resolution as originally passed was felt by some to be perhaps likely to create antagonism. Meanwhile, Professor Rogers had questioned somewhat in conversation, the wisdom of establishing such a committee, since an unfair advantage would be given to professors and instructors who are alumni, and in fact these would be put in the position of sitting in judgment upon other professors. The question of discontinuing the committee was raised, but there was a very strong feeling that this should not be done, and that with good judgment the changed form of the resolution should suffice to remove the objections which had been raised. All later experience justified this conclusion.

The importance of this subject at the time under consideration will be realized better if one recalls the condition of the Institute during the early years of the Association. It was in a most precarious position. The number of students had fallen off greatly and its funds were entirely inadequate to meet the necessary expenses. Application for aid from the state failed to secure a favorable response. Three full professorships were abolished, all the professors' salaries were reduced*, and even a proposition, understood to have come from members of the corporation,

*It is proper to note here that the scanty funds of the Institute were so well managed by its treasurer, John Cummings, that at the end of the period just mentioned the corporation was able to declare a "bonus" equal to the amount of the reduction of the professors' salaries during the last preceding year. Such a proceeding is rare if not unprecedented in educational history. No hint had been given to the professors of any such action until they were notified of it. In the time of most pressing need Mr. Cummings pledged himself personally to secure the funds necessary to avert disaster. In 1893 the John Cummings Laboratory of Mining, Engineering and Metallurgy was so named in recognition of his devoted labors, and tablets were erected which, as President Walker has written, will "tell the students of the invaluable services Mr. Cummings has rendered to the school."

looking towards a possible closing of the school was in circulation orally. Happily the danger was averted and the situation was materially relieved, two years later, by a marked increase in the number of students, and shortly thereafter by the establishment of a considerable endowment fund raised by subscription among the friends of Professor Rogers.

With some few omissions and some changes in the assigned frequency of the reports, these continued until the reorganization of the Association in 1909. They were not published, however, until 1895 when the report for that year was printed separately and sent to the members of the Association. Beginning with the report of the Committee for 1896, published in the *Annual Report of the Association* for 1897, they were printed yearly through 1906. Without exception they have been useful and the later ones dealing with the widely increased activities of the committee are extended and valuable.

Besides the direct effect of the reports of the committee on the school, whose magnitude can hardly be known, the very existence of such a committee throughout the years was important, since it was an actual witness to the interest of the alumni.

As a gratifying sequence to the labors of the Association, a letter was received from Professor Rogers (now President Rogers again, following the resignation of President Runkle) which is of such importance as to demand its insertion in full.

"Newport, September 14, 1878.

Dear Professor Richards:

At the meeting of the corporation of the Institute, held some months ago, it was voted that the alumni of the Institute be invited to nominate one of their number as a candidate for membership of the corporation.

As chairman of the committee on nomination of the corporation, I therefore beg that you will announce this vote to the alumni, with the request that they shall take such action in the premises as they may deem best.

Yours very truly,
WILLIAM B. ROGERS.

Prof. R. H. Richards,
Chairman Alumni Association."

In accordance with the request contained in this note, the executive committee of the Association sent to every member a letter containing the names of three candidates, asking that one of these be indicated as the choice of the recipient. The names of the three candidates with the number of ballots given to each were sent to the corporation, with a statement that whichever one might be selected the choice would be acceptable to the alumni. The corporation thereupon elected Mr. Howard A. Carson, '69, of Boston into its membership.

Mr. Carson has continued to serve as a most valuable member of the corporation up to the present date.

In 1882-83 Dr. Francis H. Williams, '73, and in 1883-84 Mr. James P. Tolman, '68, were further elected.

Mr. Tolman retained his membership up to the time of his death in 1915, giving unremitting attention to the interests of the Institute. Dr. Williams was made an original member of the executive committee, continuing such until 1908, when after twenty-five years of continuous service he declined further re-election. He still retains membership in the corporation. He has given most devoted and unfailing service to the Institute. It was because of his thorough and urgent interest and appreciation that the Rogers Laboratory of Physics was given a large allotment of room in the "New Building" in 1883, without which it would have been impossible to carry on the work of the newly established Course in Electrical Engineering. In later years the Physical Department owes to him both directly and indirectly many valuable gifts of apparatus.

In the years immediately following there were added to the corporation Messrs. Eliot C. Clarke, 1884-85; Arthur Rotch, 1886-87; Samuel M. Felton, Jr., 1887-88; Samuel Cabot, 1889-90, all former students of the Institute, and Mr. Felton a graduate in Civil Engineering. Mr. Clarke resigned membership in 1902, Messrs. Rotch and Cabot are deceased, Mr. Felton is still an active member.

Directory

At the meeting of January 27, 1876, it was voted by the newly organized Association that a directory of its members should be compiled and printed, containing a statement of the present and past occupations of each, this to be continued each year.

Such a biographical directory of twenty-eight pages containing quite full sketches of the graduates up to and including the Class of 1875 was published in 1876 as the chief portion of the *Alumni Report* for that year. In following years the names of newly graduated alumni were inserted together with all ascertained changes in address of those of earlier date. This practice was discontinued after 1881. Two years before this date the Institute, at the instance of Professor Lanza, then assistant secretary of the faculty, began the insertion of a complete list of its graduates with their occupations in the annual catalogue, a procedure which apparently had a great and speedy effect to increase very materially the number of young men preparing for admission to the school. In view of this publication of wider range the list issued by the Association was discontinued.

In succeeding years up to and including 1902-03 the insertion of the list of graduates in the annual catalogue was continued, it also being understood that this catalogue would be sent to all graduates. Since that time the extended series of the *Register of Graduates* and later of the *Register of Former Students* issued at frequent intervals has rendered other publication unnecessary.

The numbers issued are as follows: *Register of Graduates*, 1903-04,

1905, 1906, 1907, 1908, 1910, 1911. *Register of Former Students*, 1909, 1912, 1915, 1920.

Annual Reception

Another matter, but of a less serious character than those just considered, is deserving of mention in this place.

In the early years of the life of the Institute, those prior to 1879, there were no exercises of any kind other than a private meeting of the members of the graduating class to mark the close of the Institute year and of their course of study. The graduates called for their diplomas (or sometimes did not) when they chose and had no word of farewell said to them either publicly or privately. Though the subject of holding graduating exercises had been under consideration more or less earnestly for several years, there was a difference of opinion among the faculty regarding its expediency, and President Rogers, fearing exercises of "the brass band and floral decoration kind," did not look approvingly upon them. His objection, it should be said here, was withdrawn when the character of the exercises proposed was made clear to him and they were instituted in 1879. But this explains why Huntington Hall has never been decorated with plants nor music heard therein at the graduating exercises.

Once, however, while Professor Rogers was still president some one had placed on the speakers' table a beautiful vase of laurel branches and red berries. When he rose to address those present, he spoke on opening of the simple character of the exercise without the usual accompaniment of plants and flowers, and then apparently conscious for the first time of the presence of the laurel made an eloquent allusion to the seeming exception to the custom which the Institute had set and pointed out the significance of the adornment of the table with the berries and the laurel, *baccae laureus*, symbolizing the academic degree which the candidates for graduation were to receive, won by their faithful and conquering intellectual struggles through their four years of study.

To many it seemed unfortunate that such an unceremonious and unsympathetic attitude of the corporation and faculty should characterize the time of graduation, so that the suggestion was made by the officers of the Association that an informal gathering of a purely social character should be held to which, besides alumni and other former students, the faculty and corporation should be invited. I was felt that the opportunity thus afforded to the graduates to meet members of the corporation should be gratifying to them and that the bearing and character of the young men could not fail to impress the latter favorably. The first "May Meeting," as it was colloquially called, was held in 1878 and a second a year later. These had proved so successful that the Association voted to make them permanent and to assume the necessary expenses, the payment of which had at first been guaranteed privately. The institution of graduation exercises in 1879 held the class together and made later reunions still more enjoyable and more satisfactory to all concerned.

These meetings were kept up through 1903, when the other festivities attendant on the graduation period and the large size of the classes made it undesirable to continue them longer.

In connection with what has been said regarding the earliest graduation exercises, the following quotation from a letter, dated June 8, 1879, written by President Rogers to Professor Runkle then in Europe is interesting:

"A public graduation such as we have so often talked of was held on the twenty-ninth of May. It was perfectly simple, without music or flowers either of rhetoric or horticulture, but has been pronounced a great success, even by Eustis and Lovering,* who were present through the whole."

Resignation of Professor Pickering

The Institute met with a most serious loss in the resignation of Professor Edward C. Pickering, Thayer Professor of Physics and Director of the Rogers Laboratory, which took place at the close of the first term in January, 1877, to assume the duties of Director of the Harvard College Astronomical Observatory.

The great work of Professor Pickering at the Institute and his devotion to it and to his students personally were highly appreciated by his pupils and colleagues, and at the annual meeting of the year a committee consisting of Messrs. C. S. Minot, '72, and F. H. Williams, '73, was appointed to draw up suitable resolutions to be conveyed to him from the Association, which took action as follows: "Resolved, that the Alumni Association have learned with sincere regret of the resignation of Professor Pickering, and that we hereby express our high esteem of the example he has afforded us of devotion and enthusiasm in the pursuit of knowledge as well as for the interest he has manifested and the encouragement he gave us in our scientific endeavors.

We tender him our cordial wishes for his success and happiness in the new duties he assumes and the assurance of our warmest personal regard."

To these resolutions a most appreciative reply was made by Professor Pickering, which was read at the next annual meeting of the Association, January 24, 1878.

Petitions for State Aid

At the annual meeting of 1878, January 29, the Association had the great pleasure for the first time of the presence of Professor Rogers as a guest and of hearing him speak with his wonted force and eloquence. He expressed, particularly, "first a sense of profound gratification at having lived through so long a portion of this fertile nineteenth century, and second an exceeding joy at his good fortune in later years of having planted seed of which a partial result was already shown." He gave an interesting brief sketch illustrating by a few happily chosen

*Henry L. Eustis, Professor of Engineering, Lawrence Scientific School; Joseph Lovering, Hollis Professor of Mathematics and Natural Philosophy, Harvard College.

examples the state of chemistry and physics when he began to teach.

He then sketched the growth and early prosperity of the Institute and called attention to its needs, urging the alumni to do all in their power to cause the members of the Massachusetts Legislature to examine for themselves and see the work which the Institute had done and can do for the State and the Country, and thus be able to vote understandingly on the pending appeal of the Institute for a grant from the State for aid.

He finally called attention to the great influence which had been exerted by the Institute on the methods of education throughout the country and concluded with an eloquent plea for a high scientific culture in its students.

Professor Rogers was unable to remain after closing his address. It was voted later by the Association to thank him "for his welcome presence and interesting address and to pledge the hearty co-operation of the Association in the plan for securing state aid." Also a committee of seven members was appointed to appear before the Committee of the Legislature on Education to further this end. The appeal referred to was for $50,000.

In February, 1878, Dr. C. S. Minot, '72, representing the alumni, appeared before the committee in company with representatives of the corporation and faculty. The address and arguments from the alumni representative created a very favorable impression. The Committee on Education with other members of the Legislature had previously visited the Institute and were greatly interested in what they were shown of its workings. The committee's report was in favor of the Institute's bill. But the Committee on Ways and Means, while admitting the merit of the Institute's claims, reported against its passage, but solely on account of the financial conditions of the time. The bill was defeated in the House by a vote of 117 nays and 69 ayes.

The failure to obtain the aid sought from the State was a serious blow to the hopes of the corporation and faculty, then sorely pressed for funds.

In the printed report of the Association for 1879, there will be found an extract from the collection of facts presented to the legislative committee relating to the numbers and occupations of the alumni of the Institute at that date, together with a collected list of all the grants of money which had been made by the State of Massachusetts to collegiate institutions.

In later years the Institute was more fortunate in securing a favorable reply to its applications to the Legislature, in furtherance of all of which it received the earnest aid of the alumni which, of course, became more influential as their number increased.

In 1887 the corporation petitioned the Legislature for a grant of $200,000, in response to which that body voted an appropriation of one-half of the desired sum, payable in two annual installments, subject, however, to the requirement that the Institute should raise an equal sum, $100,000, prior to the first payment to it, which should be added

to its permanent fund. This the Institute was able to do largely through the efforts of Mr. William Endicott, Jr., an unfailing friend and always a most liberal benefactor, who more than once came to its rescue under critical circumstances and whose services, it is to be hoped, may ere long be recognized by some suitable material memorial.

The Legislature further required that the Institute in consideration of this grant should establish and maintain twenty free scholarships to be awarded under certain specific conditions.

The corporation felt that the requirement of the foundation of these scholarships was unduly severe in view of the limited amount of the grant, which would yield at interest but little more than the actual cost of the scholarships, each of the value of $200 which had to be provided. Hence the Institute refrained from drawing the first installment of the appropriation and again in 1888 went before the Legislature explaining the facts in the case, and petitioning for a further grant of $100,000. This was awarded, to be payable $50,000 in 1889 and $50,000 in 1890. The twenty State scholarships called for were thereupon established. The appointments made under these and later State scholarships have uniformly been administered by the State Board of Education.

At a later date, 1895, in response to a petition to the Legislature for financial assistance, the Institute received a grant of $25,000 per annum for a term of six years, beginning January 1, 1896, and in addition thereto the sum of $2000 per annum to be devoted to the maintenance of ten additional free scholarships. By subsequent action in 1901, these grants were continued for ten years longer.

A full account of the applications to the Legislature, with the resolves passed by that body in response thereto, will be found in the *President's Reports* for 1887, 1888, 1894, 1895, 1902, these dates being those of the year in which the corresponding report was read at the December meeting of the corporation and to which the report specifically relates. The respective dates of publication as printed on the title page are 1888, 1888, 1894, 1896, 1902. Prior to 1903 there is some lack of consistency in the matter of dating. The report for 1894 contains the text of the memorial presented by the Institute. The several resolves will be found officially published in the *Acts and Resolves*, for 1887, 1888, 1895, 1901.

The date of the termination of the last-mentioned grant lies much beyond the time to which this sketch was intended to extend; but the particular subject under consideration is so important that it seems advisable to mention in outline subsequent procedure of a few years later. Prior to this date of expiration, however, the imperative needs of the Institute caused by the great increase in numbers of its students and the inevitable expansion of its work with the progress of science and the industrial arts again placed its finances in a critical condition and it was faced, unless relief could be obtained, with the prospect of a heavy and increasing deficit. The deficit for 1910 was nearly $24,000 and that for the following year, as stated by President Maclaurin,

would have been almost $97,000 except for gifts and bequests which were received. During the five years 1906-1910, the alumni had contributed the sum of $206,665 as a supply or income fund to assist in meeting immediate and pressing necessities. Some further subscriptions were still due, of which $22,754 were paid in during the following nine months and somewhat in addition later. But this aid, which was designed to be temporary only, could not be prolonged beyond its appointed limit.

Details regarding this fund will be found in the *Treasurer's Reports* for the years under consideration, and also in the Reports of the Alumni Council in the REVIEW. See particularly Vol. XII, 1910, p. 305.

Under these circumstances it was decided to memorialize the Legislature again, asking for a grant of such an amount as, with those future additions by gift or bequest which might reasonably be expected, should be sufficient to meet the needs of the Institute for a considerable period. At the end of this time it would presumably have become self-supporting. The estimate made by President Maclaurin of the sum needed was $100,000 per annum for ten years, a total of $1,000,000.

To some this seemed an amount which, though reasonable, was unlikely to be looked upon favorably by the Legislature, but it was the final judgment of those most intimately conversant with all aspects of the case that it was desirable to apply for what was necessary to accomplish the desired purpose, trusting that, large as was the request, the value to the Commonwealth of the work of the Institute would be so fully realized as to lead to a favorable response to the memorial.

An exceedingly able and influential committee was appointed by the corporation to present the claims of the Institute, consisting of President Maclaurin, the secretary, James P. Munroe, '82, the treasurer William B. Thurber, '89, and Messrs. Thomas L. Livermore, Robert S. Peabody, '68, Lucius Tuttle and Frank W. Rollins, '81.

The Committee on Education and the Committee on Ways and Means were very favorably impressed by the arguments presented to them. At the public hearing, men of the most varying interests and affiliations spoke warmly in favor of the resolve. Harvard University by its President, while not a believer in general aid of such character, urged its passage, and indeed only one voice other than of cordial approval was heard, that curiously enough of a neighboring college president. An article in the TECHNOLOGY REVIEW for February, 1911, Vol. XIII, p. 111, gives a full and very readable account of this hearing.

Meanwhile, under the management of Mr. James W. Rollins, '78, a canvass of the State was made by committees of the alumni constituted of persons well acquainted with the particular localities to which they were assigned, who took upon themselves the duty of making sure that every member of the Legislature should have an opportunity to inform himself fully regarding the services of the Institute to the Commonwealth, its necessities at the time and the various particular ways in which it was helping and could still further help the industries of the State. So well planned was this canvass that it elicited much

praise from the public for its thoroughness. The press of the State was uniformly favorable in its treatment of the matter, and when a vote was reached the measure as finally presented, after certain amendments, was passed with scarcely any opposition. There was fear in some quarters that the Governor might veto the bill, but after considering the subject with great care he signed it.

The resolve as passed provided that the sum of $100,000 per annum should be paid to the Institute annually for ten years, on condition that within five years from the signing of the bill, the Institute should have received by gift or bequest the sum of one million dollars to be added to its permanent fund. The fulfilment of this condition was assured very shortly afterwards.

It was further provided by the resolve that during the continuance of the annual payment, the Institute should provide eighty free scholarships, two for each senatorial district.

Regarding the requirement of the scholarships, President Maclaurin says in his *Report to the Corporation* for the year 1911 (dated 1912), "The maintenance of such scholarships accords with a well-established and thoroughly sound educational policy, but, of course, it diminishes very considerably the direct financial benefit that the Institute derives from this grant from the State."

The resolve further repealed all former acts authorizing annual appropriations of funds for the maintenance of free scholarships at the Institute. The text will be found in *Acts and Resolves*, 1911.

The annual payments to the Institute under this Act will terminate with that of 1921. A recent amendment to the Constitution of the State forbids any future grants to institutions which are not wholly under the control of the State. The fact that this provision brings such grants to a close, offers a reason for carrying the history of these given to the Institute down to the present time.

The sum received by the Institute through the State from the income of the Federal Land Grant Acts of 1862 and 1890, respectively, continues as heretofore, one-third of the total amount annually received by the State being paid to the Institute and two-thirds to the Massachusetts Agricultural College. The sum received is $5306 annually under the Act of 1862 and $16,666 under the Act of 1890. This is not likely to be changed at present or so long as the Institute is ready to perform the obligation incurred to give instruction in military tactics.

The disposition of the funds which are paid annually by the Secretary of the Treasury of the United States to the Treasurer and Receiver-General of the State among such colleges of agriculture and the mechanic arts as fulfil the requirements of the Act of Congress referred to is, however, determined entirely by the Legislature of the State, and is presumably subject to change, should conditions lead it to judge this to be desirable.

An interesting, as well as important, action relating to this matter occurred in 1892, when the first payment under the grant of 1890 was made to the Treasurer of the State. The Legislature had accepted

the grant in 1891 but had taken no action regarding its particular distribution and the question whether existing legislation relative to the grant of 1863 would be sufficient to determine this was under consideration by the legal advisers of the State. If existing legislation should be found to be sufficient, and determinative, the Institute would naturally receive the same fraction of the new grant as of the earlier one.

In his *Annual Report* for 1890 General Walker, foreseeing the conditions which would presently arise, recommended to the corporation that, should further legislation be entered upon regarding the grant of 1890, the officers of the Institute should be authorized to memorialize the Legislature and ask that a larger share than one-third of the income from the grant of 1890 ("at least one-half") should be paid to it. The reasons for believing this to be just and proper and called for by the interests of the Commonwealth as well as by those of the Institute are very convincingly set forth in General Walker's recommendation to the corporation (see *Annual Report* for 1890, p. 50) and more at length in the memorial which was presented to the Legislature, signed by the president, secretary and treasurer. (See *Annual Report* for 1891, p. 50.)

The basis of the claim of the Institute was, of course, the facts that while "at the time the Act of April 27, 1863, was passed the Institute of Technology existed only upon paper," and "its future was necessarily involved in great uncertainty," the conditions had vitally changed with the passage of the following years. "Professions not named in 1863," writes General Walker, "have come into being and have risen to transcendent importance, while the development of industrial science throughout the world, to which no single institution has contributed more than our own school, has created demands which were not then felt."

The memorial of the Institute was presented to the Legislature, but meanwhile an unexpected and somewhat disconcerting condition had arisen.

The Massachusetts Agricultural College, believing that it should rightly receive the whole of the appropriation under the grant of 1890, while the funds were still in the hands of the Treasurer of the State, petitioned for a writ of mandamus to compel him to pay to the treasurer of the College the total amount of the appropriation. The Institute was made a party to the suit.

The case was argued before Justice Holmes of the Supreme Court of Massachusetts, Mr. A. Lawrence Lowell appearing for the respondent, and then went to the full bench for decision. Several questions largely technical were considered, but the principal one related to the competency of the Institute as a college promoting education in the mechanic arts.

To one having any familiarity with the subject of education in the industrial arts, the question would seem possible only of an immediate affirmative answer. Such was the judgment of the Legislature of Massachusetts when in 1863 it allotted one-third of the income from the Fund of 1862 to the Institute. At later dates like appropriations

were made to institutions of the same character in other States. The matter now under consideration, however, was complicated by the presence of certain other considerations

The Court entered into a careful analysis of the competency of the Institute to receive the funds in question. The opinion quoted from the Act of Incorporation of the Institute that this was "for the purpose of instituting and maintaining a society of arts, a museum of arts, and a school of industrial science, and aiding generally by suitable means the advancement, development and practical application of science in connection with arts, agriculture, manufactures and commerce," and remarks regarding this, "Looking at the object of this corporation as defined by its charter, it would seem as if its corporators had anticipated in our State the purpose of Congress, embodied in the statute which we are considering." And further on, "It is believed that few of the institutions which are receiving the income of funds established under this Act are in their organization so near as this is to the very language of the Act. They could hardly be nearer without using the precise words of the statute."

The Court decided, though not unanimously, that it is solely the province of the Legislature to determine how the fund shall be distributed between the two claimants.

The Legislature decided to make the same proportional distribution of this fund between the Agricultural College and the Institute as had been made with the Fund of 1862.

The decision of the Court rendered by Justice Knowlton is printed in full in the *President's Report* for 1892, p. 58.

Incorporation

At the annual meeting of January 15, 1880, the subject of incorporating the Association was debated, and it having been ascertained informally that the sense of the meeting was in favor of the action, it was voted to refer the matter to the executive committee for consideration and report. A year later that committee presented a report, but was not prepared to recommend definite action, also feeling that if the Association desired to pursue the matter further it should be referred to a special committee. It stated, without comment, several important liabilities which incorporation would legally impose, while empowering the Association to hold property, as to sue and be sued, to become responsible for the proceedings of its officers, to render it necessary that each alumnus should sign in writing his acceptance of membership in the Association.

The presentation of the report was not followed by any discussion, and no further action was taken. It was doubtless felt, as indeed the report remarked, that a requirement of a written acceptance would act to diminish the membership.

Alumni Fund

It early became apparent that it would be of great value to the executive committee in its plans for the varying activities of the Association, to have available some funds on which it could draw in case of need for unusual expenses without waiting for the action of that body. To meet this want a plan was proposed by S. W. Holman, '76, and brought forward at the annual meeting of 1880, as a result of which it was voted "That each member of the Association be and hereby is invited to subscribe to a permanent fund for the benefit of the Association, and that the subscriptions be payable in annual installments for five years to the treasurer of the Association. . . ." Each succeeding class was to be notified three years after its graduation of the existence and objects of the fund, and invited to contribute to it. Messrs. James P. Tolman, '68, Howard A. Carson, '69, Joseph Stone, '68, were chosen to be trustees of the Alumni Fund as it was called.

A year later it was reported by the trustees that the sum of $1275 had been subscribed by forty-four persons, of which $237 of the first installment had been paid.

The paid-in subscriptions never quite reached this amount. But though the fund is small, it has been of very material service, as will be seen from the following data furnished by Mr. Humphreys, the secretary of the Association. Total amount of fund January 1, 1920, $1114. Total subscriptions paid in $1079. Accrued interest $1761.

Substantial appropriations from the income of the fund have been made toward the *Register of Publications*, 1895, the Walker Memorial Gymnasium, 1898; *The Register of Former Students*, 1909.

In 1893 a contribution of $2539 was made by alumni through the Association toward defraying the expenses of the Institute exhibit at the Chicago Columbian Exposition. Of the committee in charge of this, James P. Tolman, '68, was chairman and James P. Munroe, '82, the treasurer.

This alumni fund must be clearly distinguished from the funds of a much later date, which have been contributed to the Institute by its alumni for various purposes and to which the same name has been applied in the Institute publications. Such is the Income or Sustaining Alumni Fund referred to earlier in this paper, which is a most remarkable evidence of appreciation on the part of the alumni of the character of the support called for by the peculiar exigencies of the situation, a help which was invaluable. Also the same designation, "Alumni Fund" is applied to the great fund raised in connection with the new site and buildings which on June 30, 1919, had reached a total of $602,240.

It would, therefore, be well to avoid confusion if the title of the original alumni fund of the Association should be distinguished from others by giving it a particular name, of which the most appropriate would be the "Holman Alumni Fund" in remembrance of him through whose suggestion and advocacy it was established.

Register of Publications

A very important early work of the Association was the publication of a list of all papers which had been published by the Institute, its officers, students and alumni. Such a record was prepared by Professor William Ripley Nichols, '69, who with most painstaking labor and good judgment compiled a very complete bibliography extending from 1862 to 1881 inclusive, which was published in 1882. The expenses of publication were met by individual subscriptions and aid from the Alumni Association, which also voted its thanks to Professor Nichols. A revised and extended edition, embracing all titles from 1862 to 1887 and containing 1600 entries, issued after the death of Professor Nichols, was edited by Professor Lewis M. Norton, '73, and published in 1888. Only citations of first publication were given in this edition. In 1893 a third edition was issued in connection with the exhibit of the Institute at the Columbian Exposition at Chicago. Professor Norton, who had undertaken the editorship, having died suddenly, this work was completed by Dr. Augustus H. Gill, '84. It contains nearly 2900 titles.

In 1900 a *Supplement to the Register*, 1893-1898, containing about 1150 titles, was issued, edited by Professor Gill. It was expected that such a supplement would be published every five years, but this has not been done. A collected list of publications of the Institute and its staff is, however, kept by the Association, and titles are published from time to time in the Technology Review and the *Annual Report of the President* of the Institute.

The *Register* of Professor Nichols was very largely a tribute of regard to President Rogers. The preface says that a chief reason which determined the particular time of its publication was that "it was thought that it would be a pleasant thing to give to President Rogers as he retires from active duty, this new evidence of the usefulness of the school in whose beginnings he has had so great a share."

He had already written to Professor Rogers on January 1, 1882, when sending him a copy of the "proofs" of the *Register* as a New Year remembrance, "An additional incentive to make such a compilation was the thought that the list might add, in some trifling degree, to the satisfaction which you must have in reviewing your connection with the Institute and in feeling that while the burden of actual duty is now removed, the vine of your own planting has already borne much fruit."

Professor Nichols died July 14, 1886, having been in failing health for several years. At the following annual meeting of 1886 a memorial notice was read by Professor S. W. Holman, '76, as follows:

"William Ripley Nichols was known by his fellow alumni as friend, classmate and instructor. To those who knew him only as instructor, that word will recall his insistence on undivided and untiring attention to duty, absolute truthfulness in every detail of work and thoughtfulness in every act. This demand, which to the beginner seemed perhaps unduly stringent, took on quite another aspect as he came to realize that it was an essential characteristic of truly scientific work, that it

was the vital principle of the education which he had come to the Institute to acquire, and that upon no one so much as upon himself did Professor Nichols impose its uttermost fulfillment.

By those who, while yet students, came more and more to regard him as a friend, and still more by those friends who were associated intimately with him, this characteristic became recognized, however, as the outcome not of a merely scientific spirit, but of much more, of a spirit of sincerity, earnestness and effort, backed by high moral purpose.

Words are not necessary to recall the counselor, broad-sympathied and ready, the friend, discriminating yet wholly unassuming, the witty but kindly companion. And the heroically patient struggle, amid which he yet accomplished so much visible result, is too fresh in mind to bear more than allusion. Nor are words needed to strengthen the helpful influence which those, especially the younger, feel, whose privilege it has been to come into familiar intercourse with a character of such intrinsic worth."

To this admirable characterization, Mr. Holman added the appreciation of Professor Nichols by President Walker contained in his *Annual Report to the Corporation* for 1886.

The following resolutions were thereupon passed by the Association:

"The alumni of the Institute would place upon the records of their Association a loving tribute to the noble character and life-work of William Ripley Nichols, beloved as a friend, esteemed for deeds accomplished, respected for nobility of character.

To Mrs. Nichols they would tender their most respectful sympathy."

It is a gratification to note that the corporation of the Institute has selected the names of both Professor Nichols and Professor Holman to designate two of the new dormitories, the Nichols Building and the Holman Building. Professors Nichols and Holman were two of the ablest, most devoted and most high-minded men who have ever been members of the faculty of the Institute. It is not too much to say that if the Institute continues true to its ideals, their influence on its work and character will be even more enduring than the structures which commemorate them.

Last Address of President Rogers

His Subsequent Death

The annual meeting of January 19, 1882, was the first to be held subsequently to the resignation of President Rogers from that office and the appointment of General Francis A. Walker as his successor. These were both present at the dinner and at its close the latter was presented to the Association by President Rogers and addressed the alumni briefly.

At the business meeting preceding the dinner the following resolutions, presented by Dr. C. S. Minot, '72, had been passed unanimously

and were communicated to President Rogers by the secretary as directed.

"Whereas, the Alumni Association wishes to express its deep sense of gratitude toward President Rogers for his devotion to the interests of the Institute, and to express to him the earnest hope that his release from the onerous and exhausting duties of the presidency of the Institute will bring to him complete recuperation,

And, whereas, further, the Association wishes to acknowledge President Rogers' warm interest in the welfare of the graduates and to convey to him an expression of its feeling of personal cordiality toward him,

Resolved, that the secretary of the Association be, and hereby is, directed to invite President Rogers to attend all future meetings of the Association, and that the secretary communicate to President Rogers a copy of this preamble and resolution."

To the letter of the secretary, Professor Rogers replied as follows:

"117 Marlborough Street, Boston, February 21, 1882.

My dear Professor Cross:

I trust that you will not think me unmindful of your letter enclosing the 'Resolutions' of the Alumni Association, although circumstances have led me, so long, to delay its acknowledgment.

Let me now beg that you will convey to the Association my heartfelt thanks for the very kind and appreciative terms in which they have referred to my connection with the Institute, and for the privilege they have given me of fellowship with them in their meetings; and let me further request you to assure them that I value their personal esteem and affection as one of *the great satisfactions of my life*, and that I shall ever continue to take an undiminished interest in the welfare of the Institute, and in the happiness and success of its alumni.

Believe me, dear professor,

Yours faithfully,

WILLIAM B. ROGERS.

Prof. Charles R. Cross, Secretary of the Association of Alumni,
Massachusetts Institute of Technology."

This was the last communication received from President Rogers by the Association with the exception of the following telegram to the secretary sent from Newport, his summer home, dated May 26, 1882, in reply to the invitation sent to him to attend the annual reception.

"Regret I cannot be with the alumni this evening but I beg you to present my affectionate regards.

WILLIAM B. ROGERS."

Four days later, May 30, 1882, was graduation day for that year, and it was while speaking eloquently in response to a most beautiful and touching tribute from General Walker that his long and useful life came suddenly to an end.

The Alumni Association attended the funeral, held in Huntington

Hall, in a body, and at a special meeting passed the following resolutions presented by Dr. F. H. Williams.

"At the close of the exercises on graduation day, it pleased a kind Providence to end the labors of our beloved President Rogers.

The alumni of the Institute and many other students who so highly valued his guidance and instruction, while feeling acutely the suddenness of the blow which has removed him from among them, still realize the peculiar fitness of this close in the midst of work and surroundings created and cherished by him, and even in the exercise of his accustomed eloquence, which had so often communicated his own enthusiasm to his hearers.

Unsurpassed in the faculty of presenting a subject with clearness, he made it brilliant by such words and manner as won not alone the attention and respect of the listener, but commanded admiration and affection.

While we mourn his loss as that of a dear friend, and with sincere sympathy for those near to him, we do not forget that no nobler example could have been given the alumni and those who are to follow at his Institute than his life of high moral purpose and simplicity."

A full account of the death and funeral of Professor Rogers is given in his "Life and Letters," Vol. II. In connection with the subject it will, perhaps, be proper incidentally to mention an error relative to the funeral which otherwise is not likely ever to be corrected.

The pall-bearers at the ceremony were Messrs. Henry B. Rogers, John M. Forbes, Dr. Robert Hooper, Mr. Thomas T. Bouvé, Professor Othniel C. Marsh of Yale University, Professor Edward C. Pickering of the Harvard College Observatory and Ex-President Runkle and Professor William P. Atkinson of the Institute.

Through an error of the reporter for the daily newspapers the name of Professor Bowne of Boston University was substituted for that of Mr. Bouvé, and naturally after the lapse of twenty-four years, the contemporary notices were accepted as correct, so that the error remained undetected by the editor of the "Life and Letters."

A meeting of the Society of Arts of the Institute, in memory of President Rogers, the first after his death, was held in the physical lecture room of the Institute Building, October 12, 1882, President Walker presiding. The alumni were represented among the speakers by Mr. James P. Tolman and Professor Charles R. Cross. A copy of the account of this meeting, published by the Society of Arts, was sent to each member of the Alumni Association.

December 7, 1904, was the one-hundredth anniversary of the birth of President Rogers. It was observed by an especially appropriate commemorative meeting held in Huntington Hall. The annual meeting of the Association was held on December 13; and at the dinner following this, Mrs. William Barton Rogers was present as a guest of the Association. Addresses upon the life and work of President Rogers were delivered by President Pritchett and Ex-President Crafts of the Institute, Professor Charles R. Cross and Mr. James P. Munroe.

The writer recalls an interesting fact, though entirely unrelated to the death of President Rogers, that the graduation day of 1882 fell on May 30, Memorial Day, and the question arose of raising the flag on the Institute building as had been customary. General Walker said immediately that he never would allow a class to be graduated under a symbol of mourning and directed the flag to be drawn to the top of the mast, believing also, as he said, that such, rather than at half-staff, was the proper position, a truth which in later years has come to be very generally recognized. But, of course, the flag was lowered in the afternoon in view of the event of the morning.

William Barton Rogers Scholarship Fund

At the annual meeting of 1883 it was voted to appoint a committee to consider the establishment of an "Alumni Memorial" to President Rogers, further steps toward which were taken at the meetings of 1884 and 1885, at the latter of which, in accordance with the report of the committee it was voted to proceed to undertake the raising of a sum not to be less than $5000, to constitute a Rogers Memorial Scholarship Fund. This was to be "a loan scholarship, that is to say the recipient [is] to make a verbal agreement to return the money when he is able, such returns to be immediately devoted to paying tuition on the same terms as the interest on said fund or in such other manner as the Trustees of the Fund shall deem desirable." The committee was instructed "to take measures to raise the fund before the year 1890," the twenty-fifth anniversary of the opening of the Institute.

There had been some informal discussion as to the best form which the memorial should take. To a statue or a portrait, there were obvious objections, greater at that time than would be the case now, and it was agreed without any dissent that the Scholarship Fund would be the best and the most enduring memorial.

There were at that time only three undergraduate scholarships at the Institute, the Sherwin and the two Savage scholarships, the former of which was available only to graduates of the Boston English High School. Since 1889 the income from the Savage Fund has been employed in maintaining a single graduate fellowship. That the Memorial Scholarship should be a loan scholarship was the judgment of all concerned, and it was moreover in line with the known opinion of President Rogers that all scholarships should be of that character.

In answer to the appeal issued by the Association, subscriptions were received in the following years, the last of them in 1890, when the amount of the fund including accrued interest had reached $8136. In 1895 the fund was turned over to the treasurer of the Institute, but returned in 1910 to the Alumni Committee on Permanent Funds.

The following data are furnished by Mr. Humphreys, the secretary of the Association.

Amount of fund, January 1, 1920, principal $11,044; loan account, $11,009. Total, $22,053. Total amount expended for scholarship aid $27,735. Total amount refunded on above $18,700.

Ten per cent of the gross income must be added to the principal each year.

Various further matters of interest were considered during the formative years of the Association of which no record was made chiefly because they did not relate to any motion presented for definite action. One of these concerned a possible alliance of the Institute with Harvard University, which was discussed very ably and with strong differences of opinion. It was generally felt, however, that whatever individual views might be held, Professor Rogers having again assumed the office of president under very discouraging circumstances, the Association should "hold up his hands while awaiting the progress of events."

Bureau of Employment

Early in the history of the Association the question was considered of establishing a bureau of information which should keep a record of former students of the Institute so that any who might wish help in the direction of employment could be aided. The matter was referred to a committee, consisting of R. H. Richards, S. M. Felton, Jr., and Dr. Francis H. Williams, which reported in 1882. The report which it presented to the executive committee considers the subject in all its relations and finally expresses the opinion that "the committee think it is worth the while to start the bureau provided the right manager can be found."

The executive committee devoted several sittings to the consideration of the report, but did not feel that it could recommend the establishment of the bureau. In their judgment, "even if such a bureau were desirable, the work could be much more readily and effectively done under the direction of the secretary of the Institute than by the Association."

It was further felt individually that the Association had no funds which could properly be devoted to this work, and also that the labor involved in the establishment of a suitable memorial to President Rogers would render it unwise to assume this additional responsibility.

Of course, then as now, many cases of assistance of those who had studied at the Institute were taken care of by the teaching staff individually.

Nothing more was done in this direction until 1893 when a special circular regarding a plan for such assistance as was previously contemplated was issued by the secretary of the Association, Professor H. W. Tyler, '84, who was at the same time secretary of the Institute. This plan was carried on with success for a considerable number of years under his direct supervision and responsibility.

Subsequently the business was placed at different times in charge of the Dean, the President's Assistant, and a Faculty Committee on Recommendations of Students for Appointments, which was discontinued in 1920, its functions being transferred to those in charge of the "Technology Plan."

Local Associations

A very important matter, though it may be summarized in a brief statement, first came to be noted by the Association in 1888. At the annual meeting of that year attention was called to the foundation of local societies of the alumni of the Institute, and in view of this fact it was voted "that it is the sense of the meeting that it be a part of the regular duties of the Secretary to correspond with the officers of such local societies and to report at each annual meeting such matters as he may deem of interest."

Of these local societies the Northwestern Association was founded in 1887 and the Rocky Mountain Association in 1889. At present fifty-seven such associations are in existence.

The Technology Club of Boston must also be referred to in this connection. It was founded in 1896 through the foresight and devoted labors of Mr. James P. Munroe, '82. Its object, like that of the Alumni Association, has been to promote the welfare of the Institute, and the social interests of its officers, alumni and students. In this respect by its various activities, its service to the Institute through many years has been invaluable. The changed location of the Institute has for the time being prevented the continuance of its work, but this inactivity will undoubtedly be of a purely temporary character.

The more recent and larger undertakings of the Association lie beyond the scope of the present paper. The constant devotion of the alumni, through all changes, to the perpetuation of the high standards of education set at the very beginning of the Institute, their fruitful work in the establishment of the Walker Memorial Fund, their earnest and intelligent consideration of the questions involved in the "Proposed Agreement" between the Institute and Harvard, the income fund and endowment fund raised in times of critical need, their all-important subscriptions in aid of the transfer of the Institute to its new site, their generous and patriotic support of war activities, at home and overseas, and most recently their truly magnificent work in completing the amount necessary to secure the Technology Educational Endowment Fund — all these lines of work should be described collectively by some of the many who have been immediately and actively concerned with them. Fortunately, there are a number of such who are able to perform this duty.

SEVENTY-NINTH MEETING OF THE COUNCIL

Walker Memorial, October 25, 1920

THE seventy-ninth meeting of the Alumni Council, and the first of the current year, was held on Monday evening, October 25, 1920, in the Walker Memorial, Cambridge, Mass.

The usual informal dinner was served at 7.00 P.M. with an attendance of thirty-six. Mr. Alexander Macomber, '07, was salad orator and urged greater publicity for Technology. The meeting was called to order at 7.50 by President Leonard Metcalf, '92, with an attendance of forty-three.

The business on the call for the meeting was: Report of Nominating Committee on Membership upon the Standing Committees. Report of Special Committee upon Representation of Local Associations. Recommendation of Reunion Business Meeting. War Records. Proposed Conference of New England College Representatives on Problems of Student Government. Conference between Retiring Alumni Term Members and Newly Elected Term Members.

The records of the last meeting were read and approved. The Nominating Committee then made its report in which it offered the following names, declared by the Club to be elected: Committee on Assemblies: Harrison P. Eddy, Jr., '17, until 1925; Committee on Permanent Funds: Francis R. Hart, '89, until 1923; Committee on Technology Review: Donald G. Robbins, '07, until 1925; Committee on Historical Collection: H. B. Richmond, '14, until 1924. The Special Committee upon Representation of Local Associations made the following report:

At the meeting of the Executive Committee held on October 27, 1919, a committee consisting of Gilmore, '90, Humphreys, '97, and Denison, '11, was appointed to consider representation on the Council of Local Associations. The committee met and organized forthwith and it was at once agreed that it would be wise to defer action in the matter until after the Endowment Fund drive was finished, since through this medium a good line could be obtained on some good workers who would make ideal councilors.

At the conclusion of the Fund drive it was decided to report at the first meeting of the 1920-21 Institute year. Your committee therefore recommends that the list of representatives of Local Associations be at once revised. Some of the men representing associations are now class representatives, others are members through having been president of the Association, while still others are habitually absent from almost all council meetings.

Your committee therefore nominates for membership in the Council the following men, each of whom it believes to be interested in and

willing to work for the welfare and best interests of the Massachusetts Institute of Technology: Akron — Technology Club of Akron, Ohio, C. R. Main, '09; Birmingham — Southeastern Technology Association, John O. DeWolf, '90; Buffalo — Technology Club of Buffalo, B. S. Hinckley, '99; Charleston — Technology Club of West Virginia, H. B. Richmond, '14; Dayton — Dayton Technology Association, E. G. Allen, '00; Detroit — Detroit Technology Association, K. Spaulding, '89; Hartford — Technology Club of Hartford, J. W. Kidder, '06; Hawaii — Technology Club of Hawaii, Joseph H. Knight, '96; Japan — Technology Association of Japan, H. E. Lobdell, '17; Montreal — Technology Club of Lower Canada, Percy Ziegler, '00; New York — Technology Club of New York, Myron H. Clark, '03; Philadelphia — Technology Club of Philadelphia, C. E. Morrow, '12; Pittsfield — Technology Club of Pittsfield, John M. DeBell, '17; Schenectady — Technology Club of Eastern New York, William Green, '05; Springfield — Technology Club of Springfield, H. E. Worcester, '97; Washington — Washington Society of the M. I. T., John F. McGann, '01; Worcester — Technology Association of Worcester County, H. L. Robinson, '11.

Further your committee recommends:

1. That the secretary of the Association continue to send notices and subsequent minutes of all meetings of the Council to the secretaries of the Local Associations.

2. That the representatives keep in touch with the associations which each represents, in person wherever possible, but in any case by frequent interchange of correspondence.

3. That the secretary of the Association send a letter to all representatives of Local Associations stating the reasons for the revision herewith proposed.

Respectfully submitted,

G. L. Gilmore,
Walter Humphreys,
Orville B. Denison, *Chairman.*

This report was accepted.

Professor Henry P. Talbot, Chairman of the Administrative Committee, addressed the Council upon recent developments at the Institute. He told of having attended the recent inauguration of President Burton at the University of Michigan. In telling of the two and one-half days' educational symposium held coincidently with the inauguration, he described the hypothetical university with a sliding scale of tuition fees proportioned to percentage scholarship, proposed by President Kaufman of the University of Washington. He next told of the extraordinary demands being made on the Institute educational staff with a registration of slightly more than 3500 this year as opposed to slightly less than 2000 last June. In closing he enumerated the recent changes in the faculty and told of the re-establishment of the School of Chemical Engineering Practice and of a number of departmental changes.

President Metcalf next presented the recommendation of the reunion business meeting and told of the replies he had received from letters sent to the secretaries of local associations and class secretaries requesting expressions of opinion as to how an Alumni Director might best be chosen. The consensus of opinion seemed to be that a man under thirty-five should be chosen, that he might be more closely in touch with recent graduates. He quoted Mr. Charles A. Stone, '88, as being in favor of holding off on the selection of an Alumni Director until after the selection of an Institute President, and stated that the Executive Committee had no recommendation, but a suggestion that we continue to give serious consideration to the matter so that when the new president is selected the question may be brought up for prompt solution.

Mr. I. W. Litchfield, '85, said that at the reunion it had been hoped that the matter would be brought into effect at once and that he considered it had gone too long now. He believed we were losing the great co-operative value of the alumni by not having some one move among them and tell them personally of the activities and the needs of Tech. Mr. Amasa Holcombe, '04, heartily endorsed Mr. Litchfield's stand in the matter and told of Dr. George H. Newell, '84, who, as President of the American Association of Engineers, had recently traveled around the country a lot trying to interest industry in giving worthy employees technical knowledge. He said Dr. Newell had told him that he believed that a man traveling thus in the interest of the Institute would do untold good and it was *Voted:* That the Alumni Council accepts the recommendation of the reunion business meeting and that a committee of three or five be appointed by the chair to canvass the matter of the appointment of a Director for the Alumni Association and report to the Council. President Metcalf said that the committee would be announced at the next meeting of the Council.

Dr. Harry W. Tyler, '84, next showed the Council the only copy of the War Record which has been completed to date. He reviewed the work at some length and paid particular tribute to the untiring efforts of the editor, Captain John H. Ruckman, '10. Later the book was passed around for inspection and on all sides was heard most favorable comment. Dr. Tyler announced that a complete financial report would be made later, but that the Committee was forced to admit that it had made a mistake at placing the regular edition at three dollars, representing practically the cost at that time. Under present conditions the books are costing about eight dollars each, and Dr. Tyler asked for an expression of opinion as to how it would strike the members of the Council to ask the three-dollar subscribers to send in another dollar, adding that it was planned to send the books parcel-post C. O. D.

A lively discussion followed, a number of the members speaking, and the general opinion seemed to be that it was proper under the circumstances to request another dollar or two from the three-dollar subscribers, but the idea of sending the books C. O. D. seemed to meet with almost unanimous disapproval.

Later in the evening upon motion of Dr. Tyler it was *Voted:* The

unexpected size of the War Record volume and the extraordinary advance in costs of printing and paper have increased the cost to approximately eight dollars per volume, and in spite of subscriptions and guarantees amounting to nearly $20,000 have left a considerable deficit in the treasury. Of the total edition of 5500 volumes, 148 have been taken at $25, 552 at $10, which includes the 126 which have been reserved for families of men on the Honor Roll, 130 at $5, 3837 at $3, and 833 remain and will be turned over to the Institute.

It is the sense of the Council that a statement of these facts be made to all subscribers with a suggestion that additional contributions of two dollars each will be accepted.

Dean Burton next presented the case of the proposed Conference of New England College Representatives on Problems of Student Government. He reviewed for the Council the meeting of New England deans and the work already under way, trying to provide ways and means of changing the undergraduate point of view in regard to Institute work through a joint committee of students, faculty and alumni. What Dean Burton proposes is to have the Undergraduate Institute Committee invite men from the undergraduate bodies of other institutions somewhat similar to our own to find out what other institutions are doing along the lines of student government and to tell them what we are doing here. He suggested including Cornell, Renssalear, Sheffield, Stevens, Worcester Polytechnic Institute, and possibly others. In closing Dean Burton suggested to the Alumni Council that an invitation should be sent to the President of the Institute Committee to be present at each council meeting.

Professor Pearson endorsed Dean Burton's proposal project and, as an example of the value of undergraduate activity, paid a tribute to Captain Ruckman who blazed the way to his remarkable success in editing the War Record volume, by his work on the Board of Editors of Technique 1910. Such work as proposed might very well be originated here on account of the hearty co-operation which exists here between students, faculty and alumni, in working out student government. It should also give recognition to Technology as a college.

A number of council members added their hearty endorsement of the idea and Mr. Smithwick, '21, president of the Institute Committee, presented the student side in a most interesting manner. The Institute Committee, he said, is heartily in favor of doing all possible to aid student government here and in other technical schools.

Voted: That the proposed Conference of New England College Representatives on Problems of Student Government be referred to the committee already existing on the Honor System.

Dr. Tyler, just before the close of the meeting, cordially invited all council members not already members of the Faculty Club to join the latter organization.

ORVILLE B. DENISON, *Secretary pro tem.*

ANNOUNCEMENTS BY ADMINISTRATIVE COMMITTEE

New Courses and Appointments

THE executive committee of the Massachusetts Institute of Technology has taken the vacation time to rearrange a number of the courses of instruction. The changes include both condensations and expansions as the experience of past years and the trend of modern education have suggested. The important expansion is the erection of the division of chemical engineering into a full department bearing the same name. This change has been foreshadowed for some time by the success of the division in bringing together the Institute and the manufacturer. The plan has been really to take the Institute to the factory and increase the laboratory facilities of Technology by including great industrial plants with thousands of employees in the ground available for the courses of the students. The new department of chemical engineering will include the old division, together with the Research Laboratory of Applied Chemistry and the School of Engineering Practice. The initial development of the division was the establishment by Professor C. H. Walker of courses in different manufactories about the Eastern country. Through the co-operation with Technology of a number of large industrial corporations, Professor Walker was able to arrange extra-Technology courses in chemical engineering practice, having five stations of the Massachusetts Institute of Technology, one each in Bangor, Everett, Niagara Falls, Pennsylvania and Connecticut, each of which represented some type of industrial activity.

Each station had a resident professor and an assistant and the students remained six weeks at each place. The declaration of war with Germany made instant demand for skilled chemists and the school was dissolved in a twinkling. On cessation of hostilities Technology found itself so closely in touch with the manufacturers that a resumption of the School of Engineering Practice was demanded and beyond that a department of industrial co-operation and research was established at the Institute. This is now all included in the new department of chemical engineering, and the work of developing the new field, "the Technology plan," as it has been termed, demanded so much of the time of Professor Walker that he was obliged to resign from the School of Engineering Practice.

The faculty of the new department includes Professor Walker, chief of the department; Dr. W. K. Lewis, professor of chemical engineering, formerly second to Dr. Walker in the school, who now assumes directorship of the School of Engineering Practice, assisted by Robert T. Haslam, associate professor of chemical engineering. The latter will have charge of the out-of-town stations and Robert E. Wilson, associate professor of chemical engineering, will be director of the research

laboratory. Three assistant professors are now named to take charge of out-of-town stations of the Massachusetts Institute of Technology: Walter G. Whitman, director at Bangor; Paul G. Woodward, director at Everett, and Dustin W. Wilson, director at Niagara Falls, or rather Buffalo, for this station includes the important industries of the city as well as those clustered about the falls. The instructors at these stations are: W. P. Ryan at Bangor, Fred P. Baker at Everett and R. F. Tenney at Buffalo.

The personnel of the research laboratory of the department will include, in addition to the director, two assistant directors, Leon W. Parsons and Charles C. Venable; and nine research associates, Allen Abrams, Harold V. Atwell, Ralph H. Bailey, Clarence F. Eddy, Everett W. Fuller, James H. Holden, William G. Horsch, William B. Ross and Harry H. Storch. Nine other men are named as research assistants, Daniel P. Barnard 4th, Leonard R. Churchill, Tyler Fawa, Verner V. Kenall, Erskine D. Lord, Richard F. Lyon, Laurence E. Weymouth, Carl E. Ronneberg and Merrill A. Youtz.

In the courses in chemical engineering (within Technology) the faculty includes William H. McAdams, assistant professor of chemical engineering, C. S. Robinson, assistant professor of industrial chemistry, and three asssistants in chemical engineering, T. H. Hingston, Robert J. Tobin and Charles H. Herty, Jr.

Another change in departments is the consolidation of the geology and geological engineering with mining engineering and metallurgy, with the title, department of mining, metallurgy and geology. Waldemar Lindgren, William Barton professor of economic geology, is the head of the new department, and the personnel includes those who have belonged to the two departments. Still a third change has been the merging of the department of drawing and descriptive geometry with the architectural department, of which it will be a division. Professor William H. Lawrence is head of the department, which is still housed in the Rogers Building on Boylston Street. The change will free certain of the rooms in the Cambridge structures probably for the use of students in chemistry, which department is sorely in need of more room.

Some rearrangements in personnel have been made in the Research Laboratory of Physical Chemistry, which is a part of the department of chemistry. F. G. Keyes, associate professor of physico-chemical research, has been made director, D. A. MacInnes and Louis J. Gillespie, assistant professors, and James A. Beatty and Charles E. Ruby, research associate.

PROFESSOR WALKER RESIGNS

Will resume private practice — Succeeded by Prof. C. L. Norton

After twenty-five years of active service in teaching and research work in Applied Chemistry and Chemical Engineering, Dr. William H. Walker has tendered his resignation as Director of the Division of Industrial Co-operation and Research, to take effect on January 1, 1921. He will resume his consulting practice, which was interrupted in 1917 by his joining the Army, and although no longer officially connected with the Institute, will maintain his interest in the development of the Division and will closely co-operate with it in the fulfilment of the contracts under the Technology Plan already existing.

This Division acts for the Institute of Technology in the administration of its obligation incurred under the Technology Plan by which over two hundred of the most prominent industries of the country have made contracts involving annual retainer fees of over a quarter million dollars.

He will be succeeded by Professor Charles L. Norton, Professor of Industrial Physics at the Institute and Director of the Research Laboratory of Industrial Physics. Professor Norton has long been in close contact with a wide range of industries. He was early associated with the late Edward Atkinson in the pioneer work of fire prevention and as engineer in charge of the insurance engineering experiment station. He was largely instrumental in the introduction of Portland Cement concretes as a material for fireproof construction. He is the inventor of processes largely used in the manufacture of asbestos wood and asbestos shingles and is associated with the great asbestos industries of the country. He has recently developed in this country processes for the manufacture of metallic magnesium, a metal much wanted for chemical uses and the manufacture of light alloys, the supply of which coming from Germany was wholly cut off by the war.

He is a director or executive of a number of manufacturing corporations and is a Fellow of the American Academy, member of the American Society of Mechanical Engineers, American Physical Society, American Chemical Society, American Society for Testing Materials, and others.

RECORD ENROLLMENT AGAIN

A new high mark — Government sends many men — Students from foreign lands — A new registration system

THE official figures for the 1920-21 registration at the Institute, given by the registrar on November 5, are as follows: First year, 744; Second year, 810; Third year, 1049; Fourth year, 747; Graduate and special students, 163; Total, 3513. Earlier figures were somewhat larger, owing to the fact that the last minute registration rush, although as far as possible prevented this year, was so overwhelming as to make the new registration system function less perfectly than had been hoped for.

On the first day of school *The Tech* wrote as follows (with some correction of figures for later developments):

"With 3513 students enrolled up to noon yesterday and more coming, Technology begins its fifty-sixth year with the biggest registration in its history. This is an increase of sixteen per cent over last year's figures. Of those entering Technology for the first time 744 are freshmen and over 600 are transfers from other colleges. West Point and Annapolis have sent 115 officers who are to take special technical courses. Over 100 men have registered for graduate work, a marked increase over last year's figures. Foreign students contribute 225 to the total; China and Norway leading with forty-five and thirty-five respectively. Thirty-five women students have entered for the first time and together with those returning it is probable that two per cent of the Institute population will be composed of co-eds.

Practically every course in the Institute is taxed beyond its capacity, since there are already 1500 more students than the new buildings were designed to accommodate. The Electrical Engineering Department will have to arrange for 1000 men taking laboratory work this term. Chemical Engineering seems to be the most popular course, with Mechanical Engineering closely following.

The Registrar's office has been virtually swamped by hundreds of men seeking section assignments and reports on last week's examinations. Although only sixty-three per cent of the students, exclusive of those graduating, return to the Institute each year, still Technology is probably the only institution in the country where so many men are taking purely engineering subjects.

Among the transfer students entering this fall are eight Russian officers, veterans of the war, who have been sent here through the Russian Embassy in Washington. Great Britain is sending a war veteran here to study and we are also receiving men from the United States of South Africa and the Chile-American Association."

To obviate the usual last minute rush of former years, a new plan

was worked out during the summer, which did, indeed, effect a great saving of energy and time the last week. The plan is described, as follows, by one who saw it working during the summer and wrote upon it at that time:

"A new system of registration of students is under way at the Massachusetts Institute of Technology, one in which the matter is discussed by letter and considerably in advance of the opening of the school. It is from the returns by this method that the estimate of 3500 students for the coming year is reached, for already some four weeks before the first courses there is a registration of more than 2000.

Formerly it was the custom to have the two or three days just preceding the opening of the school devoted to registration. The great draughting rooms at the top of the buildings were devoted to the purpose, and the students, having procured their registration material, proceeded to fill the various cards forming the register. The cards when filled were filed with the registrar.

Under the new system this is all changed. Students wishing to study at Tech apply for registration material at any time they wish. In the quiet of the home and with the aid of the parents the young man makes his selection of courses and subjects, and when these are determined the card is mailed to Cambridge and, so far as the student is concerned, registration is completed.

There are a good many advantages to be derived from the new system. Much of the work of classification, that was formerly done under greatest pressure in the four or five days about registration time, can now be done with the advantage of normal working conditions and spread over a month or more. The classifications can be made in advance, and this at the Institute means a great deal. The nature of laboratory and technical courses is such that the classes are small units of students, perhaps not more than six or eight, who receive the personal attention of an instructor. These little groups must be arranged after registration, and heretofore it has been very difficult so to consider them before the opening of the Institute. It will now be possible to begin instruction in the classes at nine o'clock the day of opening, a gain of several days over the old plan.

These arrangements affect those who have already passed the entrance or continuation examinations and who are sure some time in advance of attendance. There will be, however, the usual fall entrance examinations during the week of September 25, and those young men who take these will follow registration in more nearly the old way.

One potential disadvantage of the new system of registration is the greatly increased amount of correspondence necessary. To care for this and other details, the registrar, Walter Humphreys, is assisted by F. L. Clapp, assistant registrar, and A. F. Holmes, while the burden of caring for the men from other colleges has been lifted from the shoulders of Professor A. L. Merrill, secretary of the faculty, and is now assumed by a committee of credential examiners under the general charge of Dr. James L. Tryon."

In the week before the Institute opened *The Tech* wrote as follows:

"At the present time 2700 of last-year students have registered, 400 freshmen, and 600 men from other colleges have presented their applications for approval by the committee on admissions. The new system of registering by mail has greatly facilitated the handling of the extremely large number of men.

A new plan was also tried out by the committee on admissions whereby transfer students are enabled to have most of their credits signed off before they come here. This part of the work has been placed under the leadership of Dr. James L. Tryon, who has the office formerly occupied by Professor Merrill. As soon as the men arrive at the Institute they call at this office where they get a certificate of subjects already taken care of and also a list of courses where a personal conference is necessary to clear up the subject matter covered. With this system the long line of waiting students has almost entirely been done away with.

Because of a mistaken idea which is held by some that registration was completed by mail the registrar's office has asked that the attention of all be called to the fact that two address cards must be exchanged for a receipt of registration which is then to be taken to the bursar's office to be countersigned.

No regular registration will be carried on after Saturday and a fine of five dollars will be imposed on any one who has not completed at that time. Any changes or corrections in schedules can be made Monday by filling out correction cards."

HEAR CORRECT TIME SERVICE IN WALKER

CORRECT time service will be rendered the student body in the main dining hall, Walker Memorial, when the Radio Society puts into operation an amplifying system for receiving Arlington, Va. The signals start coming at 12.55 and last until 1 o'clock.

Through the courtesy of the Atlantic Radio Company, Boston, a Magnavox, or loud speaking telephone, and four stages of amplification, have been placed in the movie booth, above the entrance to the hall. This telomegaphone will be connected through the Cambridge Telephone Exchange with the society's receiving set in Building 35. The signals as they come from the air will be amplified so as to be heard all over the hall.

The signals consist of dots every second for five minutes, except the twenty-ninth and fifty-fifth to fifty-ninth seconds, which are skipped. At ten seconds to one o'clock the dots cease and at the exact stroke of one, one long dash is given.

SCHOOL INCREASES ITS MEDICAL SERVICE

More adequate attention to health this year

AMONG the other new things which are to be seen about the Institute this fall are the new medical rooms and sick bay. This department of medical supervision has been completely reorganized during the summer and finds not only new officers in charge but many new innovations in the systems of the department.

The new head of the department is George W. Morse, A.B., M.D., Fellow of American College of Surgeons of Harvard University. Assisting him is Dr. B. E. Sibley of Brookline, who will alternate with him on interviews. Seven other surgeons and doctors complete the emergency list, not on duty at all times, but subject to call. Completing the organization are three office workers who have charge of the filing systems and correspondence, and one nurse who takes care of the emergency room.

The new offices are situated at the entrance of Building 3, to the left of the superintendent's office. All of the dressing rooms are painted in white and trimmed with white woodwork so that they are nice and light. On the left upon entering is a long room with eight cubicles or little dressing rooms in which men may place their clothes before medical examinations. Directly behind these are three examination rooms in which the men may interview the doctor and have their ailments attended to. On the right is the office of the working forces.

The emergency room has all the instruments and surgical apparatus necessary to perform any minor operation which may be necessary to perform immediately before the patient is taken to a hospital. A nurse is constantly on duty in this room throughout the day and will dress wounds of minor cases if the doctor is not at hand. The next office is that of the doctor and is equipped with desks and office equipment. A doctor will be on duty for conferences every morning from 8.30 to 9.30 o'clock in the morning.

A complete record of each student's physical condition and health history is the main feature of the system. To this will be added at intervals memoranda of improvement, falling off in health or new ailments. It will not be a mere chart of muscular measurements, but a complete story of the student's health rating, pointing out defects against which he should particularly guard, as, for example, weak heart or defects to which he should apply special corrective measures, as poor eyesight, teeth or posture.

"If the men get sick we'll do our best to cure them," said Dr. Morse, "but we'll do our best first to keep them well. Everybody already knows what Technology does for men mentally, and before long we will be able to show just what it does for them physically.

We shall have figures to show the size and condition of the men when they enter and corresponding figures when they leave. By tabulation we shall be able to discover the tendencies that develop during student life and trace the elimination or further growth of the original defects. All these figures are not just for the sake of statistics. It is by their means alone that we can find out the defects most likely to affect the boys and then correct them or try to remove the cause."

Examination of the entering class was soon under way. It is compulsory for all freshmen and all those going out for competitive sports, but is voluntary for upper classmen, as the work of examining the whole Institute now would involve too much time. By taking each freshman class as it comes, however, Dr. Morse will have the entire school on his health records within three years.

Out of the first nineteen boys examined, four were decidedly defective physically. The average may not continue to run so high, yet Dr. Morse considers this indication good proof of the usefulness of the preventive method. Those four cases and all others unearthed by the examination will be under close watch of the medical staff. The doctors will give their findings of defects to Director of Physical Training Frank M. Kanaly, who in turn will suggest the best building-up work for the young men and will guide them in their gymnasium exercises.

More than this, the medical director will either get in touch with the home physicians of the boys or will see to it that they visit the proper specialists in Boston. He will keep his eye on the condition of those whose constitution is frail, with a view to preventing overwork and finally will extend the scope of the medical department to inspections of the water and milk supply at the dormitories and will consult with students who live in Boston as to whether they are getting the necessary nourishment in their food.

The equipment for carrying out the medical work is complete. Dr. Morse and his assistant, Dr. Benjamin E. Sibley, have arranged a section in the basement of Building 3 of the academical group where the routine can be carried out in a minimum time without sacrifice of thoroughness. In extent the examination is very similar to the army tests, but there is the big difference that at Technology one doctor devotes his attention to the entire examination of each student assigned to him, instead of specializing in one test with a whole line passing before him. Thus a doctor can get a better idea of the physical condition of a boy, with a view to recommending corrective measures or giving words of warning, than he could get from a tabulated physical chart filled in by several other doctors, none of whom had formed a general estimate of the boy's health.

Fifteen minutes proves to be enough for each man. Bearing witness to the efficiency of the whole plan is the system for undressing, preparatory to the examination. On entering the doctors' offices a student receives a key to a cubicle or small closet for undressing, of which there are eight ranged around the walls. After keeping his clothes here under lock and key during the examination he turns the

key over to the next incoming man with the consequent elimination of any confusion and delay. The doctors are able to handle forty-eight men a day. After their original records have been tabulated, there will be the further work of recording additions from time to time as sickness occurs or the man comes for treatment.

For those for whom all prevention has been unavailing and who become ill, there will be regular morning clinics, such as have been in operation for many years. A new feature, however, will be a special examination of all men returning to work after absence for illness. Dr. Morse's idea is that he will in this way insure against any spread of disease, should the man's case have been contagious and not entirely cured, and at the same time will see to it that a man does not harm himself by getting down to work before he is really physically fit.

Despite the efficiency of the preventive medicine the doctors realize that it will not prevent crushed fingers or burns suffered in the Institute laboratories. So as the last word in its medical equipment, the Institute maintains an up-to-date first-aid room with a great variety of facilities, including a pulmotor and gas masks. Miss Julietta M. Roderick, the nurse in charge, handles from thirty to thirty-five cases every day, among whom are many outsiders in addition to members of the Institute and workmen employed in the Technology buildings. Only several nights ago the victims of an automobile accident on Massachusetts Avenue were taken there for emergency treatment. The room is open all day, while at night doctors are ready for call at a moment's notice.

GENERAL FAYOLLE VISITS INSTITUTE

General Emile Fayolle, commander of the first American army troops to fight on the battlefields of France, and now, as a representative of Marshal Foch, touring the eastern part of the country after attending the American Legion convention in Cleveland, was a visitor at the Institute early in October.

At his own request to visit the Technology buildings, General Fayolle was shown through all the departments, expressing a profound interest in the work being conducted. He was received by Prof. H. P. Talbot, chairman of the administrative committee, Prof. E. B. Wilson, Registrar, Walter Humphreys, and Dean, A. E. Burton.

Professor Wilson and Colonel Christian, of the Military Science Department, conducted the General through the buildings.

NEW PERSONNEL OF MILITARY SCIENCE DEPARTMENT

MANY are the changes which have taken place in the Military Science Department during the summer. Not only do the headquarters of the department find new rooms from which to carry on their offense throughout the year but new faces appear on the staff of instructors who have been sent to replace the casualties of the campaign last spring.

Replacing Colonel Maybach, as head of the department, is Colonel John B. Christian, Coast Artillery Corps, who will assume the duties of Professor of Military Science and Tactics. Colonel Christian is a soldier of the "old school," having seen service at many army posts in the United States as well as in the Philippine Islands and the Hawaiian Islands. Not only in many posts has he served but in many positions from which he has obtained the varied experiences in all branches of the army work which make him particularly well suited for the present position he holds.

While studying at West Point, Colonel Christian showed such aptitude for his work that upon graduation he was offered a position to instruct there. For a period of eight years he served in capacity of instructor at West Point. After leaving West Point, Colonel Christian was appointed to serve in the cavalry and it was in this line of work that he served the longest period. At the opening of the World War, he was transferred to the Field Artillery and was soon in France. His next charge came in the way of an appointment to take charge of the Signal School for non-commissioned officers in France.

Another new arrival is Major Ottosen of the Coast Artillery Corps. Major Ottosen has recently been on duty with the Coast Artillery School at Fort Monroe but at the Institute he will take charge of the freshmen drill periods during the first term of the year.

Majors Clark and Putney, who were both here last year are back again. Major Clark, Engineers, has just received an appointment as captain in the Coast Artillery Corps, Regular Army, but he will continue to be in charge of the engineer work at the Institute. During the summer he has been at the engineer summer camp, where twenty-six Institute men were undergoing instruction.

Lieutenant Watson, Signal Corps, has been sent here to take charge of the Signal Corps Unit of the R. O. T. C. This is the first time that an officer has been sent here in such a capacity and places the Signal Corps Unit on a basis with the other units of the R. O. T. C. by being represented by an individual officer.

The department also looks for the arrival of Major Mather, '11, who recently transferred from the Coast Artillery to the Ordnance Department. He is assigned to duty with the Ordnance Unit of the R. O. T. C., and will have other duties with the Ordnance School of Technology under the supervision of Professor E. F. Miller.

Big Sergeant Vaughn is back again after spending most of the summer with the Coast Artillery School for R. O. T. C. students. Other Coast Artillery sergeants are Robertson, Crowley and Preisigke.

Engineer Sergeant Krom has returned from the engineer summer camp, Camp A. A. Humphrey, where he was camp supply sergeant during the six weeks' summer session there. Sergeants Cox and Truax will assist the officer in charge of the signal unit. Both were in the Signal Corps while they were serving overseas.

One of the most radical changes in the system is the field drill for freshmen. This will take place during the first five weeks of the first term instead of all occurring at the end of the third term. In order that the new system may prove a success, it is necessary that each freshman who is to take Military Science deposit $30 at the Bursar's office to cover the issue of uniform and military equipment.

The registration in the advanced classes in R. O. T. C. work is proceeding rapidly and the department urges those who are considering taking the course to sign up as soon as possible so that the regular work may begin without delay. Each student who agrees to take these courses receives as compensation from the government fifty-three cents a day. The student agrees to take two years of advanced work following the basic two years here at the Institute or the equivalent of any other R. O. T. C. college.

ADVANCED UNIT OF R. O. T. C. HAS ENROLLMENT OF 150 MEN

The Military Science Department is conducting a campaign for membership in the advanced R. O. T. C. courses at the Institute and Colonel Christian has been visiting classes of juniors and seniors, explaining the purposes and benefits of the work. One hundred and fifty men have already enlisted in this branch of the service and the department hopes to enroll a greater number before the close of the term.

Men may sign up at any time before the end of the month and no one will be admitted to the course after the first term. Pay commences on the day of enlistment. At the present time each man receives fifty-three cents a day which continues throughout the summer, amounting to $340 by the time of graduation. Through the efforts of Major Clark those who attended the summer camp this year received $47 more than students from any other college.

Work for the sophomore classes in military science has already started and instead of holding classes in Building 30 the lectures are being given in room 2-390. The first term will be devoted partly to infantry instruction in the theory of placing troops and partly to the study of signal corps instruments as used in combat. The second term Major Clark will give instruction in the work of the Engineer Corps. Coast Artillery will be given during the third term.

TECHNOLOGY IS "GASSED"

Employees get a serious taste of chlorine

A TANK of liquid chlorine, about to be unloaded from a truck that had been backed up to the shipping room at the Institute, suddenly exploded about 4 o'clock, on the afternoon of September 29, and immediately, as the chlorine vapor rose and mingled with the air, a gas was formed that was blown into the building by the northeast wind, penetrating it for a considerable distance and affecting all with whom it came in contact.

It was identical with the gas that was used during the World War by the Germans and, but for the prompt action of those who were in the chemical laboratory, much more serious consequences might have ensued.

The close proximity of the laboratory and the fact that it is equipped with gas masks was a big factor in minimizing the danger from the gas, as several of those who happened to be at work in the laboratory immediately put on the masks and went through the building, assisting those affected from the danger zone and applying ammonia fumes, also from the laboratory, to neutralize the gas.

The fumes filled the mining building and penetrated even through the rotunda, at the main entrance, and to the offices in the south building. It also went up through the elevator wells and stairways to the upper rooms. Many of those who received warning managed to escape through the rear windows and by ladders to the ground, and thence away from the affected zone, while others were treated by Dr. George W. Morse, the medical attaché at the Institute.

F. S. Livingston, one of the oldest janitors at the Institute, was the most seriously affected and after first aid treatment he was taken in the police ambulance to the Cambridge Hospital. His condition was considered quite serious. Benjamin Legee and Manual Santoianni, two other janitors; John Evans, the driver of the truck, and Charles C. Cooper, superintendent of trucking at the Institute, also suffered. Evans had a peculiar experience. He had approached the truck and was about to unload the tank when the top blew off and his clothing immediately became saturated. Others, who were near at hand rushed to his assistance and in their attempt to tear off his clothing, also became affected.

The big ventilating fans at the institution were set at work dissipating the fumes and it was anticipated that by morning the building would be thoroughly purged. The students at the Institute did not gather for the fall term until the first of the following week and this was considered a fortunate circumstance by the authorities, as a serious situation might have resulted.

Liquid chlorine is used to a considerable extent in various of the chemical experiments at the Institute, but yesterday's accident is the first of any moment that has happened there.

The mishap was due to the fact that the tank was in such a rusty condition. When the driver had seen it, he did not think it wise to accept it, but the man in charge expressed his opinion that it was all right. As the truck had several other articles to deliver, it backed up to the open doors of the shipping department. When the driver lowered the tailboard of the truck to remove the other boxes, the tank valve weakened and the liquid immediately issued forth through the aperture. The wind at that time was from the east and created a suction which carried the poisonous gas into the buildings. It was not intended that the tank be taken into the building but it was to be placed in one of the sheds in the rear of the Institute until the chlorine had been placed in a new and safe container.

PROPOSED ATHLETIC FIELD

The New Hampshire Tech Club at its tenth annual reunion held at the Three Rivers Farm, the summer home of its president, E. W. Rollins, mobilized for a $300,000 campaign for the establishment of an athletic field in memory of Richard W. Maclaurin, late president of Technology. The more than fifty graduates of Tech present contributed $6000 toward this fund, three of the contributions being for $1000 each from E. W. Rollins, J. W. Rollins and Henry A. Morss.

The idea of a memorial athletic field originated with E. W. Rollins, who in his remarks pointed out that the present Tech buildings in Cambridge, built for the accommodation of 2000 students, are now taking care of 3100. He added that the ground now used for athletic purposes will soon have to be taken for dormitories and school accommodations. Mr. Rollins suggested that land on the opposite side of the Charles be secured for the memorial field. This land he said can be purchased for $100,000. There are 10,000 alumni according to Mr. Rollins and it was suggested that each be asked to contribute ten dollars.

A shore dinner was served. J. W. Rollins presided for the after-dinner exercises, at which addresses were made by Police Commissioner Fred M. Beckwith of Dover, Prof. Robert Richards, '68; Chief Justice John Kivel of the New Hampshire Superior Court; Pres. Arthur W. Williston of Wentworth Institute, Boston; Ex-Mayor Hackett of Portsmouth, N. H.; Norwin S. Bean, '94, vice-president of the New Hampshire Tech Club, and I. W. Littlefield, '85.

A ball team captained by J. W. Rollins defeated a nine captained by Prof. Richards, 16 to 5.

OUTGROWTH OF CONVENTION OF TECH CLUBS ASSOCIATED

Dr. Godfrey's plan for education in management to be put into practice soon

A COURSE in "management education" to provide a sufficient number of properly trained executives for the industries of the United States is to be established in a majority of the 620 American colleges, according to an announcement made recently by Dr. Hollis Godfrey, '98, president of the Drexel Institute, Philadelphia, formerly chairman of the advisory commission of the Council of National Defense.

The plan, an outgrowth of the Tech Clubs Associated Convention, attended by representatives of industry and colleges in Philadelphia last March, is backed by corporations representing a capitalization of $26,000,000,000. It is the result, Dr. Godfrey said, of these two factors coming to a definite working agreement for the first time through the establishment of the council of management education, an organization formed "to study mutual problems in order that the colleges may render the greatest possible service to industry."

Dr. Godfrey, chairman of the new body, assisted by Dr. Samuel P. Capen, general director of the American Council on Education, representing the 620 colleges, and Dr. Frederick C. Ferry, president of Hamilton College, are perfecting the plan which contemplates establishing practical courses in the schools, assisting undergraduates and others to choose their life's work, by placing several thousand students and teachers in industry during the summer months and by introducing extension courses for men now in industry. By the summer work, students will be enabled to defray their expenses at college, obtain an insight into American industry and enable the executives to select future management men.

The Council of Management Education, which has been formed, it was said, to become "a clearing house for all industrial and educational matters in the country, to promote the mutual understanding of the mutual problems of industry and the college and to keep perpetual inventory of the educational needs of industry and of the ability of the colleges to meet these needs," has opened temporary offices in the Drexel Building, Philadelphia, until headquarters are furnished in Washington.

An annual appropriation of $100,000 entirely borne by American industry has been made to carry on its work, which has been divided into two classes: First, to determine the field of service which each college can cover, and, second, to provide the college with all industrial data which may be utilized in forming undergraduate courses for men

contemplating entering industry and in reaching the management men already in industry extension courses.

All the courses and scholastic recommendations, it was said, will be passed upon jointly by the Council of Management Education and the American Council on Education before being forwarded to the institutions of learning. Within one year, it is estimated, one hundred colleges will have included the extension industrial courses and all will be provided with the industrial material upon which to base undergraduate work.

The council, according to Dr. Godfrey, is the only war organization which has carried operations into time of peace. Nearly all of the educators back of the movement served in the Council of National Defense. When the armistice was signed these men decided that the educational knowledge gained during the war at an expenditure of millions of dollars should not be lost. Accordingly, plans were set in motion to turn this information over to industry. A survey of the needs of industry was made under the auspices of the Technology Clubs Associated of the Massachusetts Institute of Technology.

While the majority of American industries are represented on the council, those having members on the executive committee are the railroads, public utilities, oil, textiles, mining, rubber, leather and shoes, paper, machinery and metals and cotton finishing.

The executive members of the council appointed to represent their industrial group are as follows: Railroads, A. W. Gibbs, chief mechanical engineer, Pennsylvania Railroad; paper, Col. B. A. Franklin, vice-president Strathmore Paper Company; public utilities, H. B. Shaw, educational director, H. L. Doherty Company; shoes and leather, Fred B. Rice, president Rice & Hutchins; mining, J. Parke Channing, mining engineer; machinery and metals, Frederick H. Payne, Greenfield Tap and Die Company; rubber, Dr. R. S. Quinby, service manager, Hood Rubber Company; cotton finishing, J. K. Milliken, president Mount Hope Finishing Company; textiles, Albert Bigelow, Ludlow Manufacturing Associates.

The educational group includes, besides Dr. Godfrey and Dr. Capen, Dr. Frank Graves, dean of the School of Education, University of Pennsylvania; Dr. Charles Tilden, professor of engineering mechanics, Yale University; Dr. David Tennant, professor of biology, Bryn Mawr College; Dr. Leigh Reid, professor of mathematics, Haverford College; C. L. Evanson, professor of engineering administration, Drexel Institute, and J. S. Pearson, professor of production engineering, Drexel Institute.

The American Council on Education has appointed the following committee as a permanent body to co-operate with the Council of Management Education: Dr. Capen, chairman; Dr. Charles R. Mann, chairman of the advisory board educational training of the General Staff, War Department; Frederick L. Bishop, dean Engineering School, University of Pittsburgh; Park R. Kolbe, president Municipal University of Akron; Raymond Hughes, president Miami University.

TWO PICTURES ON A SINGLE CANVAS

Charles Bittinger, '01, makes a sensational invention — Red spectacles create a new picture — So says the w.k. Evening Post

DISRAELI was born out of his day. He had to invent with his literary legerdemain the story of a portrait coming to life and walking from its frame. A pair of simple red-colored spectacles performed this miracle for any man at the recent Chemical Exhibition at the Grand Central Palace. Before the booth where Charles Bittinger, an artist, was exhibiting his discovery in the realm of anomalous lighting effects on specially prepared pigments all one had to do was slip the red spectacles on his nose and the demure maiden sitting in a chair turned into a tall elm tree in a meadow. This is the fact of a new and vitally interesting experiment in the realm of physics, psychology, and art.

There is no trick to this, as tricks go, except the mathematical magic of simple physics. Of course, simple physics for one man is black magic for another. But Mr. Bittinger, who attended Boston Tech, is convincing enough in sponsoring the science of his marvelous artistic transformations, and a close scrutiny of his paintings and their behavior under varying conditions of light converts any skeptic. It is a new thing, a miraculous thing, to the uninitiated, and its commercial and artistic possibilities seem limitless.

Conceive of opening your favorite magazine and scanning the beautiful multi-colored advertisements, this in daylight, and then at night under the yellow lamp turning with astonishment upon a completely new set-up.

It will solve the cost of periodicals. Clubbing offers are unnecessary. Any one will admit that most of the art cleverness and real imaginative appeal in our reading matter is devoted to the commercial and pictorial ends.

The basis of Mr. Bittinger's accomplishment lies in the fact of his recognizing the power of various pigments to alter their behavior — that is, the length of the light waves they reflect — when exposed to a change of light quality. It is not entirely the same thing as the well-known trick of making red appear black by throwing on it the complementary color green, or of making red disappear by showing it in a red light. It goes beyond this and is directly concerned with the visible spectral differences of color.

The artist has a little book with blueprint charts attached, whereon wave lengths of certain colors under certain lighting conditions are carefully diagramed. As an instance, take two samples of sea-green appearing in daylight to be identical pigments, because they reflect wave lengths which give the same sensations. Under scrutiny through

a colored screen these patches of apparently the same color are two very distinct colors. This holds true for all the recognized colors. The secret lies in the method of mixing the pigments. Utilizing this knowledge, the artist with his two brushes, one triangular of handle and one round to distinguish the anomalous paints which to the eye appear the same, paints a tree, at the same time sketching in a mermaid that will replace the tree under a different light. The chameleon effect of the apparently similar paints hides the mermaid under the guise of foliage until we put on our red spectacles. This filter cuts off the light waves from the tree and brings out the lady.

One can see there are limitless possibilities. This new development in graphic art is due to the war. Mr. Bittinger was serving in the Research Division of Naval Camouflage, with its headquarters at the Eastman laboratories. In working out a series of pigmentation experiments with Lloyd A. Jones, with the latter's scientific aid, the artist became interested in the possibilities of practically applying the spectral differences of pigments to purposes of art and commerce. The discovery of the practical use of this came too late for trial under war conditions.

A certain phase of its application to the problems of war had been worked out, however. In the artist's studio there is a painting of an airplane with the German cross on the wing. It is actually an allied machine, for when you put on the colored spectacles that are the key to the color code the cross disappears and the red, white and blue circle of the Allies is the only thing visible. The war ended before this could be tried at the front. Of course these actions of light and color were known before, but had been regarded as a nuisance, and steps for eliminating them were taken. Mr. Bittinger is perhaps the first man to take full advantage of the anomalous and so-called abnormal reactions and make them work for him. Together with the use of physical differences in pigments, advantage is also taken of the effect of these spectral variations in colors as they are recorded by the eye. That is where psychology comes in.

To put it briefly, the layman would consider it a change in pitch if the effect were produced in musical tone. The same notes are apparently struck, but a sound screen before the ear, like the color screen before the eye, would cause an entire change of pitch, and new and different sensations would result.

But enough of science. It is more fun to look at the pictures and pull the strings on the light bulbs to see what will happen. This is in Mr. Bittinger's studio. The only difference from the ordinary is a miniature box stage fitted with a series of colored bulbs. This reproduces the conditions of the large theaters, only with less than their variety of lighting effects.

Small paintings about a foot square are slipped in the back of the box like a scenic drop curtain. The imaginary music sounds. The play is local. There is Madison Square in summer with the trees in bloom and the sidewalks cluttered with the usual run of "New Yorkers" from Indiana and Tennessee. . . . Act One. Now, instead

of the old asbestos curtain and the bang and suppressed cursing of minute stage hands, the artist pulls a wire. Here is Madison Square in midwinter, snow on the building cornices, sidewalks cold and bare, and a few skeleton trees. Then the scene changes to Palm Beach, with another pulling of strings, and the play is over. There is no reason why this easy and realistic magic produced by a few tungsten bulbs and a foot of canvas cannot be even more realistic on a stage back drop.

Here alone as an artistic accomplishment in the theater this discovery of Mr. Bittinger's would sufficiently justify an enthusiastic reception, but, of course, the possibilities are greatly beyond anything that the artist's few experiments along commercial lines have proved practical. This color effect can be produced both in printing inks and in standard dyes with very little new machinery. It is a comparatively simple matter, once the secret is known, to mix these pigments. They can be prepared in any quantity at a factory, and proper labeling and a few instructions open the door to their successful use.

The probable result in the periodical world has been faintly forecast. Let us consider their effect on the clothing trade and guess a little. Cloth can be woven from dyed wools that will make a one-color suit, drab, if you like, in daytime, which will transform in the evening to a popular blue serge with artistic lines and threading. Or the process can be reversed, and without change of garment we can march from sunny Coney Island to the night lights of Broadway and appear a new man. And now consider your wife! One of these simple frock arrangements for the garden need only be worn in the dimly lighted or brilliantly illuminated, as goes the fashion, library or parlor in the evening, and she floats about in what the dressmakers call a creation. She was as a primrose, and now shames the orchid.

Of course this discovery, like all others, must be ushered upon a skeptical world with dignity and restraint on the part of the men of commerce who will govern its future. Mr. Bittinger, apart from natural curiosity as to its commercial development, wants to get the whole matter settled and get back to his painting, for he is an artist first and then an inventor.

There is little doubt, however, that concrete examples on an extensive scale of just what this discovery will lead to are not far away. Already the theaters are beginning to take notice. When the artist was painting a sample scene, or composite scene, for one well-known manager, the scene painters' union, with true conservatism, tried to prevent him. But they will come around, as all skeptics do when they no longer fear the product of an intelligence beyond their grasp.

One could go on with considerable detail following where the mind follows after this stimulating discovery. Take, for instance, the family portraits. All the aunts and uncles and the potentates of lesser kinship can rest in a single frame. Do you want Aunt Abigail? John, switch on the brown light. Now, Uncle Joe, please. The red light, John. And so it goes. But the fact is, the fact really is, in this one case, master of the imagination.

PROFESSOR TALBOT URGES CO-OPERATION

Chairman of administrative board speaks on vital educational problems at Northwestern

MORE effective co-operation between educational institutions and industries was urged by Prof. Henry P. Talbot of the Institute in an address before the American Chemical Society at Northwestern University.

Professor Talbot was present as the representative of Technology at the inauguration of President Burton, and the general symposium on education which followed it:

"Colleges are attacked," he said, "on the ground of failure to provide their graduates with a proper knowledge or appreciation of human relations and the problems of so-called human engineering, and also for their failure to supply men with readily available scientific knowledge, which is the same as the assertion that the training is too academic. The systematic efforts so far made in co-operation with the industries have taken the form of such co-operative courses as those in operation at the University of Cincinnati, the University of Pittsburgh, the Massachusetts Institute of Technology, and elsewhere. These courses are serving an admirable purpose and are training a high type of engineer. They dispel the too academic atmosphere of the classroom, they bring the student face to face with the applications of the rules which he has learned in the classic shades, and of the reactions which he has seen in beakers and test-tubes, to tons of material and to the control of massive machinery.

In spite of free predictions to the contrary, these co-operative courses are not a hindrance to the regular production work, and foremen and workmen have uniformly gone out of their way to assist students to get the best out of their work when they recognized they were in earnest. These courses, therefore, go far to afford the best practicable solution of the human engineering difficulty. They do, however, require an extra year, with the attendant expense. The need is therefore urged of additional co-operation from the industries to supply opportunities for summer work for picked men from the junior classes in the belief that this, although it entails some outlay of time and a little expense, is more of an investment than a philanthropy.

The industries are warned," he concluded, "that the college product is now put on the market at less than cost and that it is as impossible for the colleges as for the industries to meet the present-day demands and to maintain quality without enlarging plant and personnel. All of which calls for generous financial assistance and sympathetic co-operation, which, in the last analysis, is not so much philanthropy as insurance."

The society had previously passed resolutions expressing regret that Congress had not passed legislation adequately protecting American dye manufacturers, and urging that such legislation was needed, not only to prevent Germany from dumping her dyes into American markets, but to weaken her military strength. It was pointed out that the same chemicals used in dyes also were used in explosives and poisonous gases and that encouragement of Germany's dye industry gave her a latent military strength.

WEST POINT AND ANNAPOLIS AT M. I. T.

With the many recent assignments of officers of the United States Army and Navy to study here the Institute is fast taking a foremost place in the training of men for the service. All are picked men and have shown special qualifications for the work they are to take.

Besides the twenty-four graduates of the United States Military Academy at West Point, who have been here all summer, there are also twenty additional men from the academy who will start in with the fall term. The Naval Academy at Annapolis has forty graduates here taking a two-year course in Naval Architecture, three taking training to fit them as torpedo specialists and two men who are to equip themselves as gun specialists.

The arsenal at Watertown, which conducts the Ordnance School of Technology, had thirteen men studying at the Institute. The course began in September and ran until October 13, instruction being given in thermodynamics, valve gears, machine tool work and engineering laboratory. Those from the Ordnance School were: First Lt. Francis J. Achatz, Capt. Roy L. Bowlin, Capt. David W. Craig, First Lt. James M. Gillespie, Capt. John O. Hoskins, First Lt. David C. Kelly, First Lt. Arthur H. Luse, First Lt. Duncan G. McGregor Major Hugh C. Minton, Capt. Scott B. Ritchie, First Lt. Jacob G. Sucher, Capt. John A. Weeks and First Lt. Olaf P. Winnigstad.

The Ordnance Department has detailed seven officers to take advanced work in thermochemistry and theory of elasticity. All of these men have either been in the school at Watertown or else in the special school at the Aberdeen Proving Grounds. The Signal Corps has sent five men, the Motor Transport Corps five men and the Aviation Corps seven men to take work fitting them for more effective work in their various fields.

COURSE VI-A EXTENDED

Special training in business courses now possible

ARRANGEMENTS have been completed between the officials of the General Electric Company and Technology, whereby students in the senior and post-graduate years of Course VI-A may get special training on turbines in the Schenectady plant, on high-tension transformers at Pittsfield and on electric railway equipment at the Erie plant. The opportunities for further practical experience have been further extended by including accounting, sales and advertising departments. This will enable a student to specialize in other than strictly engineering subjects during his last year in the co-operative course, if he so desires.

Thirty-five members of the Classes of 1921 and 1922 in Course VI-A have begun work at the General Electric Company's plant in Lynn in accordance with the schedule for their course which requires a division of their time between work in the factory and study at the Institute.

Eleven of these men are seniors and twenty-four are juniors. They will be at Lynn for the entire ten weeks of the present term. The last group which went to Lynn has completed work there and will spend this term at the Institute. The pay for the seniors is $22.50 and for the juniors $21.00.

At Lynn the men will be housed in a clubhouse furnished by the General Electric Company.

The members of Group A, junior year of the course, who are at Lynn this term, were addressed by Mr. A. R. Stubbs, vice-president of the First National Bank of Boston, upon the subject, "The Business End of the Engineering Profession." This is the first of a series of lectures to be held in the assembly room of the new clubhouse.

BELGIAN STUDENTS HERE ON EXCHANGE FELLOWSHIPS

TWENTY-THREE Belgian graduate students who are to enter various American universities under a fellowship exchange plan worked out by the Educational Foundation of the Commission for Relief in Belgium, have already entered the institutions chosen by them. Of these two have entered Technology, André Deschamps for research in chemistry and Charles Manneback to specialize on electrical machinery and the manufacture of scientific instruments. Charles T. Van Dusen, a graduate student here in mechanical engineering, will represent the Institute abroad. Twenty-one other American students were also chosen representing ten universities.

MRS. MACLAURIN IN ENGLAND FOR THE YEAR

DURING last August some of us, with a very real dismay and sense of loss, read in the newspapers that Mrs. Maclaurin, with her young sons Rupert and Colin, had sailed abroad to make their home in England.

We are glad to learn now that this absence is only temporary, that Mrs. Maclaurin has bought in Boston, across the basin on Charles River Boulevard, a house from whose windows Technology can be seen. To this new home, after a year of rest and recovery in England, where her boys will spend the winter in English schools, she will return to us, we are glad to know, "for keeps." It was Dr. Maclaurin's desire, we understand, that his sons should be educated as Americans.

Those of the Faculty and the Alumni who know Mrs. Maclaurin, and they are a large and loyal body, will feel proud that she has chosen to remain with us and, we hope, still keep in touch with the Institute and lend us again the charm, the sincerity and the sympathy with which she helped so greatly to humanize this place. The students who knew her went out from here better men for her influence, and our already great loss would be incalculably greater if through it we were to lose that fineness, that courage, that beauty of personality which has been a blessing to so many of us. Happily we are not to lose it. Our thankfulness must be largely unspoken, but it is very deep.

EASTMAN SUCCEEDS VAIL ON CORPORATION

Elected as life member and accepts

GEORGE EASTMAN, president of the Eastman Kodak Company of Rochester, N. Y., now known to friends of the Institute as "the mysterious Mr. Smith," and the school's greatest benefactor, has been elected a life member of Technology Corporation. Word was received from Mr. Eastman on October 22 advising Dr. Elihu Thomson, acting president, that he would accept the position to which he was elected at the last meeting of the Corporation.

Mr. Eastman will take the place among life members of the corporation left vacant by the death of Theodore N. Vail, late president of the American Telephone and Telegraph Company.

A ROGERS MEMORIAL AT WILLIAM AND MARY

The New York Evening Post tells the story — Technology's Founder remembered at his own college

How many American geologists and college men generally are familiar with the name and achievements of William Barton Rogers, the geologist in whose honor, according to recent announcement, alumni of the College of William and Mary are raising funds with which to erect a memorial science hall on the Virginia institution's campus? Known in his day as the Nestor of American geologists, the proposal to honor Dr. Rogers will probably be of as keen interest to the alumni of one great Northern institution as it will be to the sons of the famous old Southern college, and as it should be to geologists everywhere.

William Barton Rogers, an alumnus of William and Mary, was the founder of Massachusetts Institute of Technology. It was largely due to the eloquence and brilliancy of this graduate and former professor of William and Mary that in 1861 legislation was enacted which set aside land in Boston and made the necessary provisions for the great technical school which today is admittedly the leader of its field in America.

Rogers, companion of Agassiz and Huxley, was the first president of Boston Tech and devoted all the energy of his last years to her service. In the midst of a speech before the graduating class of 1882 he suddenly expired, collapsing on the platform. His devotion to Tech had a great deal to do with her early success. It is an interesting commentary on the unselfish services of the men who have guided Tech's destinies that the death of Dr. Maclaurin, the last president, was said to have been due largely to his arduous labors in the school's behalf during its own recent campaign for funds.

President Rogers was one of the four "Brothers Rogers," as they were called, who were leaders in the fields of natural science and medicine in the generation following the Civil War. All four were educated at William and Mary, and each proved a worthy son of the alma mater of Thomas Jefferson, James Monroe, and John Tyler. It is doubtful if any other American college can produce from its alumni records a similar quartet of brothers, each of whom was a leader in the scientific world. Their interest in scientific matters was natural, for their father, Dr. Patrick Kerr Rogers, a North of Ireland native, was professor of natural philosophy and chemistry at William and Mary for many years.

Of the brothers besides William Barton, Henry D. Rogers was perhaps best known. At the time of his death he was regius professor of natural history in the University of Glasgow, having been called to the Scottish seat of learning from the University of Pennsylvania, where he occupied the chair of geology and mineralogy. Previously he had been professor of chemistry and natural philosophy at Dickinson College.

James Blythe Rogers became professor of chemistry in the University of Pennsylvania and Robert Empie Rogers was successively professor of chemistry at the University of Virginia and the University of Pennsylvania and professor of medical chemistry and toxicology in Jefferson Medical College of Philadelphia. Henry D. Rogers was an authority on coal. He made a geological and mineralogical survey of New Jersey for the State and also organized and conducted the first geological survey of Pennsylvania, a famous undertaking which laid bare that State's coal resources.

William Barton Rogers conducted the first survey of the State of Virginia. Surveying in one form or another apparently was well taught at William and Mary — George Washington, it will be remembered, received from her his first public office of surveyor. With his brother Robert, William Barton Rogers was the first to investigate the solvent action of water, especially when charged with carbonic acid, on various minerals and rocks, and was one of the first to observe and interpret the important class of facts which are the basis of chemical geology.

Before he founded Tech Dr. Rogers had attained an enviable place among contemporary scientists. While a professor at the University of Virginia he completed, in connection with his brother Henry, a paper on the structure of the Appalachian chain, which was the first presentation of what is known as the "Wave Theory of Mountain Chains." The work was an exceedingly important contribution to geological history in North America.

Although Boston Tech was not founded until 1861, Rogers had often thought of the idea, as his correspondence for several years previous reveals. In 1853 he went to live in Boston. Several years later Boston's Back Bay section, formerly a broad, shallow basin of salt water west of the peninsula on which the city stood, was filled in by order of the Commonwealth.

Various art and science societies banded together in the "Massachusetts Conservatory of Art and Science" and petitioned the Legislature, in 1859, for a reservation of this land for the establishment of a great scientific institution. Two attempts failed and Dr. Rogers, who had been asked to write one petition, was charged with the preparation of a plan for an "Industrial Institution" designed "for the advancement of the industrial arts and sciences and practical education in the Commonwealth." This plan, submitted October 5, 1860, became the basis of the Massachusetts Institute of Technology and has been called the intellectual charter of the institution. The Institute's charter was granted and on May 6, 1862, William Barton Rogers was elected president. Both William and Mary and Harvard conferred on him the degree of Doctor of Laws; he was elected the first president of the American Association for the Promotion of Social Science, as well as to the presidency of the American Association for the Advancement of Science. He was also president of the National Academy of Sciences. The Museum of Fine Arts at Boston was said to have been evolved from the plan put through by Dr. Rogers in 1860.

One of the original faculty of Tech was Dr. Charles W. Eliot, president emeritus of Harvard, who recently wrote to the college authorities at William and Mary as follows:

"Prof. Rogers was the founder and builder of the Massachusetts Institute of Technology. He was also the advocate and introducer, through the Institute of Technology, of the laboratory method of teaching physics and other sciences, which, since his initiatory advocacy, has come to prevail widely over the book and lecture method — a great contribution to education and to science applied to manufactures and the arts."

The appropriateness of a memorial at William and Mary to the father of the Massachusetts Institute of Technology, as he was called, is obvious. In a letter to Henry D. Rogers he once referred to their old alma mater as "the spot where we first caught the inspiration of science."

It is interesting to trace the influence of William and Mary upon the life of William Barton Rogers and its reflection in the creation of the Massachusetts Institute. At William and Mary was given the first course of study in physical science in any American college.

Students at William and Mary in the period when he was a student — about 1820 — in their science work used the physical apparatus which had been purchased in England for the college by Dr. William Small, the professor of natural philosophy and mathematics, in the eighteenth century.

In view of all this, now that William and Mary feels the need of an entirely new scientific equipment, what more natural, its friends say, than to ask the friends of American education to contribute toward a William Barton Rogers memorial science hall on the spot where the great geologist and the rest of the "Brothers Rogers" first caught the inspiration of science?

FORD TO OPEN TECHNICAL INSTITUTE

ESTABLISHMENT by the Ford Motor Company of an educational department to be known as the Ford Technical Institute, with university rank, which will grant degrees in mechanical, electrical and chemical engineering is announced.

Complete courses will be made available to the more than 75,000 employees of the Ford Company without charge. An academic department will be established and complete laboratories will be provided, the announcement stated.

The courses, it was announced, will cover every phase of engineering. The students, it was stated, will not have at their disposal equipment installed merely for demonstration and exposition purposes, but millions of dollars' worth which will be the last word in scientific development.

The Institute will be formally opened this fall.

WOMEN INSTRUCTORS AT M. I. T.

And The Tech's characteristic reaction

"Woe unto you, all ye flunkers, for upon you have descended four young women with the firm resolve to make you see aright the proper place for 'pull' and 'sugar' pounds in formulæ, even though no one will have a 'pull' as to his marks. They settled in room 2-232 when the Institute opened October 4.

"Two of them are graduates of Wellesley: Miss Dorothy Weeks, '16, and Miss Elzura Chandler, '20. Washington, D. C., is the home of Miss Weeks. She divulged how long she had lived in Washington, but the item was immediately withdrawn from publication. She is assisting Professor Page in research work, as well as taking graduate work in physics.

"While at Wellesley, she majored in chemistry and mathematics. Following this she attended summer school at Cornell. Later she was connected with the Bureau of Standards in Washington.

"Miss Chandler comes from Taunton. She is assisting in the sophomore electrical laboratory, as well as taking graduate work in physics.

"Miss Evelyn O. Clift, Mt. Holyoke, '20, comes from the State of New Jersey. She majored in physics while at Mt. Holyoke and last year she taught the subject at Newton High School. In addition to continuing her studies in physics she is connected with the sophomore electrical laboratory.

"When *The Tech's* representative asked Miss Louisa Eyre, Barnard '20, where her 'home town' was, she smiled as she replied, 'New York.' She is Professor Wilson's assistant in addition to her studies in physics.

"Miss Weeks holds up Wellesley's traditions in regard to athletic ability, for upon the reporter's mentioning that he had only recently climbed the Washington Monument, she asked, 'How long did it take you to make it? I made it in fourteen minutes flat.'" — *The Tech.*

TECH MEN ON PHILADELPHIA WATER BOARD

In selecting the members of the board to determine the possibility of expanding the city's source of water supply Mayor Moore has enlisted the services of men of recognized authority and long experience as waterworks engineers. Two of the three are Technology men.

Of the three men named, J. Waldo Smith, '86, enjoys the greatest reputation. He is now in his sixtieth year, a native of Lincoln, Massachusetts, graduating from the Massachusetts Institute of Technology at the age of sixteen, and starting at once on his profession. His first big work was in northern New Jersey, after some minor experience in the Massachusetts cities of Lawrence and Holyoke. He was assistant engineer in planning and developing the water supply systems of Passaic and Paterson, which led to his being engaged as consulting engineer to plan a supply for Jersey City. After finishing this job, he went to New York, and between 1903 and 1905 superintended the construction of the big Croton Dam, being later selected as chief engineer of the water supply extension, and the entire development of the extensive Catskill system has been under his direction.

George W. Fuller, '90, the second member, also is a resident of New York, a native of Massachusetts and a graduate of Tech. His specialty is the solving of filtration problems, in which capacity he has been employed as an expert adviser for many cities. About twenty-five years ago, when he was under thirty years of age, he attracted attention by conducting a number of elaborate tests at Louisville, Kentucky, of the comparative value of rapid and slow sand filtration. These tests still are regarded as standards by the waterworks engineers, and during the past quarter-century Mr. Fuller has advised Baltimore, Washington, New Orleans, Montreal and other large cities on filtration projects. After the recent war he was sent abroad by President Wilson as the technical adviser on the water problems of the devastated towns of northern France. He also has advised same of the Australian cities on their water-supply problems, and, at one time, was associated with Rudolph Hering, who, twenty-one years ago, headed the Hering, Wilson and Gray Commission, which decided upon the details of Philadelphia's filtration system.

John W. Ledoux, the third member, who, it is said, may be the chairman of the board, is a Philadelphian.

M. I. T. AND THE SHIPPING BOARD

Technology to run a new school for the Government

THE Institute has just established for the United States Shipping Board a new kind of engineers' training school in which advanced courses will be given. At the beginning of the war the Institute came to the aid of the Shipping Board, which at the time had extensive plans for a merchant marine and desired officers with which to man the ships. One group of schools, of which Dean Burton of Technology was director, sought to train officers for the bridge, taking men with experience at sea who lacked the special knowledge necessary to navigate a steamship. At more than twenty ports in the country these men were given special courses and some thousands of available navigators have been placed at the disposal of the board. Paralleling these schools were others at half a dozen ports, places where there were engineering colleges, which furnished officer material for the engine room. These schools gave to licensed engineers, locomotive or stationary, the salient points necessary to control engines and machinery at sea.

For more than three years this work has continued, and more than forty groups of such skilled marine engineers have been placed at the disposal of the board. The success has been so great that the Shipping Board and the Institute together are to carry the idea a step further by giving to men who have already received the special training an opportunity to prepare themselves for positions like chief engineer, or at least first assistant. The classes, which will be formed every two months for a four weeks' period of study, will be of selected material, and it is proposed to limit them to twenty-five students each, in order to secure that individual attention and contact with the professors that has been one of the fundamental principles of instruction at Technology.

STEPHEN LEACOCK ON OUR DORMITORY PROBLEM

Say M. I. T. instead of McGill and you have the true story — He writes as if he had gone to Tech — Dean Burton says Amen

WHEN I was a student at the University of Toronto thirty years ago, I lived, from start to finish, in seventeen different boarding houses. As far as I am aware, these houses have not, or not yet, been marked with tablets. But they are all still to be found in the vicinity of McCaul and Darcy, and St. Patrick Streets. Any one who doubts the truth of what I have to say may go and look at them.

I was not alone in the nomadic life that I led. There were hundreds of us drifting about in this fashion from one melancholy habitation to another. We lived, as a rule, two or three in a house, sometimes alone. We dined in the basement. We always had beef, done up in some way after it was dead, and there were always soda biscuits on the table. They used to have a brand of soda biscuits in those days in the Toronto boarding houses that I have not seen since. They were better than dog biscuits but with not so much snap. My contemporaries will all remember them. A great many of the leading barristers and professional men of Toronto were fed on them.

In the life we led we had practically no opportunities for association on a large scale, no common rooms, no reading rooms, nothing. We never saw the magazines — personally I didn't even know the names of them. The only interchange of ideas we ever got was by going over to the Caer Howell Hotel on University Avenue and interchanging them there.

I mention these melancholy details not for their own sake but merely to emphasize the point that when I speak of students' dormitories, and the larger life which they offer, I speak of what I know.

If we had had at Toronto, when I was a student, the kind of dormitories and dormitory life that they have at Harvard, I don't think I would ever have graduated. I'd have been there still.

The trouble is that the universities on our continent are only just waking up to the idea of what a university should mean. They were, very largely, instituted and organized with the idea that a university was a place where young men were sent to absorb the contents of books and to listen to lectures in the classrooms. The student was pictured as a pallid creature, burning what was called the "midnight oil," his wan face bent over his desk. If you wanted to do something for him you gave him a book; if you wanted to do something really large on his behalf you gave him a whole basketful of them. If you wanted to go still further and be a real benefactor to the college at large, you endowed a competitive scholarship and set two or more pallid students working themselves to death to get it.

That, as I see it, was about the idea and theory of the Canadian universities as they used to be. In the course of time and through the plain teaching of circumstances, we have been getting away from that idea. We are beginning to see that the textbook and the classroom are but a part of the student's life. If they are taken by themselves, in undiluted doses, they probably do more harm than good. They not only injure the student's health but they impair his mind. True education cannot be achieved after this fashion, by shoveling in information. The most that this can ever give is erudition and pedantry, never capacity and genuine acquirement. The typical product of it is the college pedant possessed of a stomach-full of fact but with a mind the size of a peanut and the outlook of a child.

The real process of education consists (as the derivation of the word implies) in bringing out of the mind the inborn capacity that is in it. I think that Horace said something of this sort before. But there is no harm in saying it over again.

Since the melancholy days of which I speak, I have had the experience of nearly a quarter of a century of post-graduate work under university teaching. It is a noble profession, and, with the continued aid of the governors of McGill University, I hope to have another quarter of a century of it at least before I hang up my mortar board and sink into the arms of the trustees of the Carnegie Pension Fund. But as a college teacher I have long since realized that the most that the teacher, as such, can do for the student is a very limited matter. The real thing for the student is the life and environment that surrounds him. All that he really learns he learns, in a sense by the active operation of his own intellect and not as the passive recipient of lectures. And for this active operation what he needs most is the continued and intimate contact with his fellows. Students must live together and eat together, talk and smoke together. Experience shows that that is how their minds really grow. And they must live together in a rational and comfortable way. They must eat in a big dining room or hall, with oak beams across the ceiling, and the stained glass in the windows and with a shield or tablet here and there upon the wall, to remind them between times of the men who went before them and left a name worthy of the memory of the college. If a student is to get from his college what it ought to give him, a college dormitory with the life in common that it brings, is his absolute right. A university that fails to give it to him is cheating him.

If I were founding a university — and I say it with all the seriousness of which I am capable, I would found first a smoking room; then when I had a little more money in hand I would found a dormitory; then after that, or more properly with that, a decent reading room and a library. After that, if I still had money over that I couldn't use, I would hire a professor and get some textbooks.

We are conducting a campaign just now to raise or lift $5,000,000 for McGill University. I have a notion that we are going to get it. And it is the duty of those of us who are in the university to show to our

generous friends outside what it is that we mean to do with it when we have it.

To my mind the greatest of all our needs is the building of the college dormitories to supply to our students a wider college life than we can give them now. There is no nobler object of benefaction than this. There is no better way to perpetuate an honored name or to cherish the memory of one who is lost than that the name and memory should be inscribed, cut deep in stone, over the gateway of a college dormitory at McGill.

— *Boston Transcript.*

ACTIVITIES OF THE WOMEN'S ASSOCIATION

On Friday afternoon, October 22, the Technology Women's Association held its first tea of the season, to welcome the women undergraduates. About sixty members and guests were present, including Mrs. Talbot and her young French guest, Mademoiselle Maréchal; and Mrs. Cunningham, who first became an adopted daughter of Tech last May, when she was made an honorary member of the Women's Association.

Following the serving of afternoon tea, Miss Colburn, chief marshal of the women's division of the "Massachusetts Republican Parade" in which Tech women graduates and undergraduates had been invited to participate, gave details relating to the parade, and then a most earnest plea for Republicanism.

Although much interest was shown and the political sentiment of those present was strongly Republican, so few signified their desire to march it was decided not to attempt a "Tech Women's Group."

The feature of the afternoon was the very interesting account given by Miss Fisher, Tech, '96 (now Professor of Geology and Geography at Wellesley), of a horseback riding and camping trip, upon which she took a party of young ladies through Glacier National Park.

Added interest was given by the beautiful photographs shown.

PROFESSOR SEDGWICK IN ENGLAND

From the London "Lancet"

In the course of a very long and eulogistic article in the well-known London *Lancet*, perhaps the most famous medical magazine in the world, an article written by Sir G. Sims Woodhead, K.B.E., V.D., M.D., LL.D., Professor of Pathology in the University of Cambridge, in reviewing very carefully Professor Sedgwick's lectures in his recent exchange professorship, said in part:

"During the early part of the present Long Vacation Course the Cambridge medical students and others interested in the advancement of sanitary science and public health were privileged to hear something of the methods of sanitation employed, and of the health work now being carried on in the United States of America. After a recent visit to the United States a former vice-chancellor, Sir Arthur Shipley, arranged for Professor W. T. Sedgwick, of Boston, professor of biology and public health at the Massachusetts Institute of Technology, to visit Cambridge, attend lectures, and deliver a short course on the organization of the United States Public Health and other sanitary services, and on the means adopted for education and training in these matters not only of public health officers and sanitary engineers but of the general public. Professor Sedgwick's own work as a teacher in training health officers and in connection with the Massachusetts State Board of Health, his researches on the protection and purification of water supplies and the purification of sewage, are amongst the most important carried out in recent years, and his contributions to epidemiology in the tracing and stamping out of endemic and epidemic diseases have been of national value. We are grateful to him for coming to give us of his wide and ripe experience, and to his colleagues for sparing him to us for a part of their University session."

"LIFE" NOTICES US

And takes a sly jab at our methods

"WHAT vivid glimpses into university life of the future are invoked in the plan of the Massachusetts Institute of Technology to tax failure and 'deficiency' among its students and faculty on a strictly cash basis. One looks across vague spaces of time into a classroom, deserted save by a tragic figure whose mad pacing mars the ominous silence.

"The class in advanced astrophotometry has just decided that failure is cheap at five dollars each, and the hapless professor who appears in the foreground will be obliged to settle up for about three hundred dollars covering sixty-one offenders, which would not be so bad if his class in phytopathology had not done the same thing one week before and if the numerically strong forces of the phototypographists were not still awaiting examination.

"When the new educational system has a chance to expand, it will no doubt touch the social life and the physical well-being of the students as well as their scholastic accomplishments.

"Behold the future bulletin board with items that read as follows:

Failure to weigh at least one hundred and fifty pounds..... $ 1
Failure to apologize to any professor financially in your downfall.. 10
Failure to be courteous to classmates who visit your room, mistreat your piano, and attempt to sing at the moment when you are intent on preparing classes (you having already pawned your grandfather's gold watch and your own dress clothes, and being without further resources to buy your exemption)..... 25

"One can see the plan extending to social life and business life. Form a mental picture of the plumber turning over fifteen dollars fine to the agonized housewife because he has not brought along enough assistants or enough equipment to make the hot water run. Imagine the striking railroad workers paying large sums daily because they have failed to make the trains run; and the longshoremen assessed because they have not unloaded the potatoes and onions and bananas; and the truck drivers because they have not delivered said fruits and vegetables; and the dealers because they have not put them on the market.

"Men and women might be taxed for not being intelligent, for not being agreeable, for not being married and for not working. Tailors would be taxed for not keeping the nation well-clothed, barbers for not keeping its hair the correct length. Theaters would have to pay when they failed to be amusing or interesting. Economic problems would be automatically adjusted, and we would enter upon the golden age that every one is optimistically looking for."

THE WAR RECORD BOOK AT LAST

An amazing performance briefly reviewed — It should be owned by every Technology man

A COPY of the "Technology War Record," just off the presses, reached the editor barely in time for this review, which considerations of time and space prevent from being anything more than an inadequate notice of what we feel sure will prove to be one of the very finest contributions to the specialized history of the war which any university, or any organization, for that matter, will publish. We have seen nothing which surpasses it, nothing that can approach it.

You will have read in the report of the Council meeting in this issue of the difficulties under which the War Record Committee is laboring, and you will doubtless have received, before you read this, the statement that since the size and cost of the book so far outran reasonable expectations, loyal Technology men and their friends are invited to add somewhat to the price of the copies which were contracted for at three dollars apiece. The contracts will be kept, of course, but we cannot imagine any one being unwilling to pay an extra dollar or two for a book of this size and completeness.

Briefly, the book is in the usual format of "Technique" but much heavier and thicker. It contains seven hundred and fifty pages, one hundred and fifty half-tone cuts from photographs, either official or taken by men in service, sixty portraits of men either dead in service or decorated or cited.

The first four hundred pages of the book are given up to ten long, well-written chapters covering every phase of the war's activity in which Tech men had a share. They are: The Work of Technology as an Institution; The War Activities associated with the Institute; Our Men on the Western Front; Our Men in the Navy; Our Men in Military Service in the United States; Our Men in the Militarized Societies and other Auxiliaries; Our Men in Civilian Government Service; Other Civilian Service; The Roll of Honor, and The List of Decorations and Citations both with photographs.

Then follows Chapter XI, consisting of very nearly two hundred pages, a complete register by classes of military records; and Chapter XII, some one hundred and forty pages, a register by classes of civilian records. These, with the list of men deceased, and the long and varied list of citations form the historical nucleus of the book.

The method of telling the story of our men overseas and in the navy is novel and most valuable. From the letters and stories of the men themselves, put together in chronological order, there has been reconstructed the story of important battles and campaigns, and of

naval activities, told in every case from the point of view of Tech men who participated and could tell what they saw. The editorial labor of compiling these chapters alone must have been tremendous, and when one considers that much the same method was followed in the other chapters, of giving the detailed steps by which the work of the Institute and of other services was accomplished, each from its own specific angle, with great attention to personnel, the reader will begin to realize, however inadequately, the nature of the task which the War Record Committee and its editor have accomplished.

The attitude of that committee can best be shown from the short and modest foreword signed by the editor.:

"The history of the Great War is, in the last analysis, merely the summation of the acts and emotions of the millions of individuals and organizations which participated in it. It therefore seems desirable that the parts played by the Massachusetts Institute of Technology, its staff, its former students and its undergraduates, should be recorded in permanent form, while the events of the struggle are still fresh in the memories of those who took part. It is also fitting that the tales of the skill, self-sacrifice and courage displayed by Tech men should be displayed as an inspiration to their comrades and descendants. Finally the time appears opportune for drawing attention to a fact, which, previous to the war, was not generally recognized, namely that such an institution as Technology is not only a valuable auxiliary in developing industry and commerce in time of peace, but that in time of national emergency it becomes an indispensable part of the Nation's military organization.

"In a sense the story of the Institute and its men has already been recorded in characters which cannot be reproduced by the pen of any scribe. The real history is written in shell-torn fields and forests of France; it is written in the blood of our friends and brothers. Such is the time record, and all the historian may hope to do is to interpret it fully and faithfully.

"This book is prepared under the direction of the War Records Committee of the Alumni Association of the Massachusetts Institute of Technology. The work has been carried on under the general supervision of Professor W. H. Tyler, '84, while the remaining members, Walter B. Snow, '82, T. C. du Pont, '84, *ex-officio*, Harry H. Young, '91, G. D'W. Marcy, '05, Walter Humphreys, '97, *ex-officio*, and Professor H. G. Pearson of the Department of English, have at all times given the editor their most hearty co-operation and support. The publication of the book has been much facilitated by those alumni and others who contributed to the guarantee fund, which practically eliminated all difficulties in financing the work. Great aid was given by the Institute publications, the *Technology Review*, the *Tech Engineering News*, *Technique*, and *The Tech*. The editor desires especially to thank those gentlemen, several hundred in number, who contributed articles relative to incidents in which they took part, or who aided in gathering material and in verifying statements."

A great co-operative work, no doubt. But all the co-operation in the world is valueless without an editor, and in Captain John H. Ruckman, '10, Course II, the committee found the man whose knowledge and labor made the book what it is. For it is not merely a collection of facts, fine and complete as the book is from that point of view. Great qualifications were necessary in that part of the work, qualifications to which the training of an engineer and an army officer were indispensable; accuracy, thoroughness, mastery of detail, unwearying patience and tenacity, the power of collecting, appraising, sifting, arranging, omitting — in short, editing. But something more was necessary and that something more was available.

It was what one may call the instinct of the historian. To that instinct were added all the qualities before mentioned. They are all essentials to the historian, but not all the essentials. More than that was needed for the book which is to be the best record of an American university in the war. A certain breadth of vision, an ability not to be downed in details but to surmount them and view them from above, an instinct to see the human element in all the masses of fact and to make that human element speak for itself and so to illumine, vivify, clarify the page of facts, an ability to marshal in the large the million names and dates and facts so that out of them leap, almost as if without premeditation, those ideas which made the work memorable and of the first importance — in short, those qualities which distinguish a historian from a cataloguer are precisely those which the reader, even the hasty reader of this book, is glad and proud to recognize and salute in John Ruckman's work.

Few professional journalists and historians could have done a better job; for a practicing engineer, lost for three or four years in the maelstrom of war, the feat is almost beyond praise. And the mere writing, the mere phrasing of this material is lucid, unpretentious, forceful, eloquent without eloquence — again, all that it should be. If such ability which many a professional writer, on the war or on other subjects, would be glad to exhibit — if such ability is a mere by-product of a technical education, the culture of America is safe. And even if, as we shrewdly suspect, the committee found, perhaps by accident. the essentially right man for the job, it is still a proof that this American specialization of ours, this division of our educated product into men of letters or ideas and men of practical work, is a foolish one and an arid one and one to which such a book as this "Technology War Record" forever and completely gives the lie.

The "War Record" is not a book to pick up lightly or to dismiss lightly. It will repay the most thorough and exhaustive study. It is the authoritative work upon Technology's four greatest years and we cannot for many years to come begin to estimate fairly how great that work was nor how authoritative this record is. It makes a book in which the committee, the editor, the contributors and the printers — for in the printing The Murray Printing Company, printers of the

REVIEW and other Technology publications, have given the book a beautiful and distinctive dress — all these have co-operated in a way which invites and receives the gratitude and the support of every one of us.

R. E. R.

CHRISTMAS TOYS BY TECH SOLDIER

M. I. T. man in hospital has toys and gifts for sale

AT the United States Public Health Service Hospital No. 45 in West Roxbury, a suburb of Boston, is a former overseas-service Tech man, gaining splendidly but not yet strong enough to be discharged. In the meantime he and his comrades are making a great variety of attractive articles, suitable gifts for Christmas and other occasions. They are for sale, and perhaps you will find just what you have been looking for there. Visiting hours are from two to four. Those of you not in this vicinity may find in your own neighborhood war hospital, if you have one, other former Tech service men pleased to know that Technology men and women have not forgotten them.

MRS. CHARLES WINTHROP SAWYER, *President.*
Technology Women's Association.

ADDRESSES WANTED

Mail has been returned to the Alumni Office for the following Former Students. Information is desired concerning these people, that they may be kept on the mailing list.

WALTER HUMPHREYS, *Secretary.*

Name	*Class*	*Last Known Address*
Frank E. Zerrahn	'76	9 Hamilton Place, Boston, Mass.
James E. Byrne	'79	46 Cornhill, Boston, Mass.
Walter C. Davis	'84	50 Cornhill, Boston, Mass.
Henry B. Pennell	'90	15A Beacon Street, Boston, Mass.
Julius F. Gayler	'96	8 Beacon Street, Boston, Mass.
Jonathan M. Morris	'98	54 Harvest Street, Dorchester, Mass.
Herbert H. Dakin	'99	15 Tudor Street, Lynn, Mass.
Herbert L. Smith	'99	25 Mansfield Street, Everett, Mass.
Harry C. Hanson	'00	185 Devonshire Street, Boston, Mass.
William B. Laine	'00	109 Bedford Street, Stamford, Conn.
Charles T. Lincoln	'01	641 Washington Street, New York, N. Y.
Abel M. Hamblet	'02	Box 785, Lowell, Mass.
J. Howard Redfield	'02	Swarthmore College, Swarthmore, Pa.
Franklin H. Reed	'02	17 Gramercy Park, New York, N. Y.
John W. Calnan	'03	315 Harvard Street, Cambridge, Mass.
Charles R. Burleigh	'06	Dan Waggoner Building, Fort Worth, Texas.
Lawrence E. Donlan	'07	69 Sedgwick Street, Jamaica Plain, Mass.
Edward A. Drugan	'07	325 Faneuil Street, Brighton, Mass.
Samuel A. Marx	'07	1120 East 48th Street, Chicago, Ill.
Lester S. Weeks	'08	Arequipa, Peru, S. A.
Walworth K. Bradbury	'09	369 Harvard Street, Cambridge, Mass.
Aber S. Wiester	'09	93 Hancock Street, Malden, Mass.
Charles W. Lindberg	'10	117 Harvard Street, Cambridge, Mass.
Y. T. Tsai	'10	Hochow, Chikkiang, China.
Joseph L. Geismar,	'11	2 West 123d Street, New York, N. Y.
Joseph Murdoch	'11	53 Harriet Avenue, Waverley, Mass.
Julius Waldstein	'11	21 Temple Street, Boston, Mass.
Russell Mack	'12	67 Wall Street, New York, N. Y.
Askel M. Pedersen	'12	702 19th Street, Washington, D. C.
Frank E. Dunn	'14	Tacajo Sugar Corporation, Tacajo, Oriente, Cuba.
Martin J. Glennon	'14	167 Brookline Street, Cambridge, Mass.
Joseph R. Lunt	'14	32 Valley Road, Milton, Mass.
John Sokoloff	'14	1381 Franklin Avenue, Bronx, N. Y.
Benjamin Schwartz	'15	70 Dakota Street, Dorchester, Mass.
Percy Catton	'16	5 Center Street, Cambridge, Mass.
Frank S. Hubbard	'17	Curtiss Aeroplane and Motor Corporation, Garden City, L. I., N. Y.
Richard J. McLaughlin	'17	628 East Buchtel Avenue, Akron, Ohio.
Roberto M. Salazar	'17	Care of F. Quezada E., San Jose, Costa Rica.
William K. Sherinyan	'17	Westwood High School, Westwood, N. J.
Robert S. Means	'18	5 Austin Street, Somerville, Mass.
John A. Parker	'18	193 Delaware Avenue, Buffalo, N. Y.
Yu Ching Tu	'18	Care of Mr. Chung Yang, Hupeh, China.
George R. White	'18	363 Locust Street, Steelton, Pa.
Dugald W. Campbell	'19	376 Y. M. C. A., Seattle, Wash.
William J. Farrisee	'19	817 Somerville Avenue, Cambridge, Mass.

Name	*Class*	*Last Known Address*
Wilfred O. Langille	'19	169 Day Street, Orange, N. J.
Robert R. Litchiser	'19	5 Dana Street, Cambridge, Mass.
George W. Roberts,	'19	114 Riverside Street, Watertown, Mass.
Raymond D. Allen	'20	45 East Front Street, Skowhegan, Maine
Jules Lowenthal	'20	1725 Sterling Place, Brooklyn, N. Y.
James F. Malone, Jr.	'20	Greenfield, Mass.
William A. Riley	'20	196 Blue Hill Parkway, Milton, Mass.

ASK TECH TO MAKE CHINESE TRANSLATION

A REQUEST for the translation of a business catalogue into Chinese, the most unusual request made upon them yet, has been filed at the division of industrial co-operation and research at the Institute. This division was established a year ago to aid manufacturing and business concerns in the solution of technical problems. Just how it has widened its scope may be seen by this latest request for service. The name of the firm asking for the translation was not given out.

IN THE PUBLIC EYE

REGARDLESS of the merits or demerits of simplified spelling, W. H. Shockley, '75, can be credited with having the courage of his convictions in his advocacy of the movement, and, although disliking the notoriety which his views have brought, he is convinced that the measure is a necessary step toward a needed reform. Few American engineers can include in their list of experiences the numerous and extensive travels which have fallen to the lot of Mr. Shockley, and it is probable that his championship of spelling reform is due, in part at least, to his contact with the complexities of many languages. William Hillman Shockley was born in 1855, at New Bedford, Mass. His father was a whaling captain and his mother had been a school teacher. His maternal grandfather was Jethro Hillman, a builder of whaling ships, famous for their durability, and his paternal grandfather was a ship carpenter, a farmer of rocky soil, and the father of fourteen children. Mr. Shockley married May Bradford, an engineer (formerly a United States Deputy Mineral Surveyor) and artist, and they have one son. Following his graduation from the Massachusetts Institute of Technology in 1875, Mr. Shockley went to Florida as a surveyor, and later to California. From 1880 to 1893 he was employed at the Mount Diablo mine, Candelaria, Nevada, as assayer, surveyor, bookkeeper, and finally as general manager. During this period he built a dry-crushing silver mill that was said to have held the record for capacity at that time. He operated a small gold mine at Grass Valley, Calif., for a few months in 1893, and the two years following studied languages, literature, art and music in New York and Europe.

Late in 1896 Mr. Shockley was sent to China by Bewick & Moreing as mining engineer for an expedition headed by William Pritchard Morgan, ex-member of parliament, with the aim of obtaining concessions, making loans and establishing a mining administration. A nearly completed British loan of £16,000,000 was thwarted by Russia's threat to send troops into Mongolia. In 1898 he took over the Shansi concession of the Peking syndicate. On this journey Mr. Shockley religiously followed Agent Luzzatti's instructions to "be kind to Chinese," but, despite this kindness, two years later a reward was offered for his head by the Shansi officials.

During 1899 Mr. Shockley spent eight months searching for petroleum and visited the noted "fire-wells" of Shansi, long extinct and now mere seepages of dark oil. During his stay in China he made a collection of porcelains and embroideries, which are now loaned to the Stamford Museum. After leaving China in 1899, he "globe-trotted" through India, took a side trip to Egypt, and in 1900 went to Vladivostok where an iron tramp steamer was placed under his charge. In this, with a gang of Russian and Korean workmen, Mr. Shockley and some

American assistants explored the Siberian coast opposite Cape Nome. No gold was found, but considerable coal was seen. Mr. Shockley had a semi-mutiny among the men, but was able to complete the work planned and examined copper deposits at Petropavlosk, Kamchatka, and gold placers near Gejiga, at the head of the Okhotsk Sea. During 1901 Mr. Shockley examined gold mines scattered over western Australia and in 1902 surveyed a concession in Korea. In 1903 he reported on quicksilver mines in Texas and a gold mine in Peru, where, instead of the tens of millions of dollars reported by the vendors, Mr. Shockley found only a few rich spots of ore guarded by myriads of bats. Later he examined a large property in the Urals, comprising iron mines and furnaces, copper mines and smelter, gold placers and dredges, a chemical manufactory and a fleet of steamers plying on more than 2000 miles of rivers. The wealthy Russian family owning this domain had invested $10,000,000 and never received a dividend.

Mr. Shockley investigated a concession in the eastern Sudan bordering on the Red Sea and Abyssinia during the early months of 1905, and later in the same year prospected gold and platinum claims which he, in company with a Russian engineer, had located in the northern Urals. Platinum was found on the property, but its occurrence was not in payable quantity. In 1913 Mr. Shockley returned to California, where he now resides. — *Engineering and Mining Journal.*

William Creighton Peet, chairman of the National Association of Electrical Contractors and Dealers, was born in New Orleans, La., October 20, 1871. He attended the Massachusetts Institute of Technology and just before completing his third year of electrical engineering in 1893, he went abroad. After spending two years in the Technical School of Darmstadt, Germany, a technical degree was awarded him. After graduation he was employed for two years with Schuckert & Co., Nuremberg, Germany, and then returned to America to accept a position in the engineering department of the American Telephone & Telegraph Co. In 1902 the engineering firm of Peet, McAnerney & Powers was formed, but upon the retirement of J. A. McAnerney in 1906, it became Peet & Powers, the name which is still retained today, with offices at 70 East 45th Street, New York City. The firm has designed and constructed many electrical installations, among which may be mentioned the Times Building, United States Custom House, Ward Bread Co. buildings, and the Scribner Building, all in New York City. In Baltimore, the Union Station and the United States Custom House were two large undertakings. Mr. Peet, almost from the beginning of his business career, has been a member of the National Association of Electrical Contractors and Dealers. He has always been active in its affairs, holding many prominent positions in the local section and for the past three years chairman of the national body.

Brigadier General Logan Feland, '92, of the Marine Corps, one of the few general officers of the A. E. F. who won the Distinguished

Service Cross, has been ordered to Washington, D. C., to take charge of the planning section of the Marine Corps Staff. He is now in command of a brigade of marines in Santo Domingo, and will be relieved by Brigadier General Charles G. Long, who has been recently relieved as Chief of Staff of the corps by Major General Wendell C. Neville.

General Feland, in addition to winning the coveted Distinguished Service Cross for personal bravery in leading troops when the marines launched their attack at Belleau Woods on June 6, 1918, was also awarded the Distinguished Service Medal. The French Army decorated him five times with the Croix de Guerre, his ribbon bearing two palms, two bronze stars, and one gold star, and also made him an officer of the Legion of Honor for various feats of gallantry and leadership performed at Belleau Woods, Soissons, Mont Blanc, and in the Argonne, while in command of the Fifth Regiment.

General Feland graduated from Technology in 1892 in Course IV, Architecture, and served as captain in the Third Kentucky Infantry during the Spanish War.

NEWS OF ALUMNI ASSOCIATIONS

NEW BEDFORD — TECHNOLOGY CLUB OF NEW BEDFORD. — The annual clambake of the Tech Club of New Bedford was held on Saturday, September 25, at Chester Vose's bungalow at Mary's Pond. Twenty-seven men enjoyed one of Peckham's inimitable bakes. Vose's cottage is off the main road and the directions called for a trip to Marion north three miles, east two miles and south one mile. President Faunce got his directions twisted, and after making complete circuit of Mary's Pond, arrived at three o'clock. Ira Chace's appetite again proved to be too much for him, but he is now on the road to recovery. A number of the men helped Chester Vose at his cranberry picking, which he is paying for at the rate of $2 per hour. — *Charles F. Wing, Jr., '98, Secretary, 790 Purchase Street, New Bedford, Mass.*

NEW YORK — TECHNOLOGY CLUB OF NEW YORK. — Unfortunately there was no write-up in the July issue of the REVIEW. Since the April number the following officers have been chosen:

President, R. B. Sheridan, '95; vice-president, Frederick Mathesius, Jr., '02, Fred E. Foss, '86, F. T. Miller, '95, W. H. King, '95; secretary, Thomas D'Arcy Brophy, '16; treasurer, Frank P. Montgomery, '02; assistant treasurer, W. H. Warren, '14. Governors, Lester D. Gardner, '98, Edward P. Brooks, '17, Noel Chamberlin, '04, Ralph N. Whitcomb, '05, George I. Rhodes, '05, Fred B. Cutter, '98, George C. Gibbs, '00, R. B. Haynes, '13, Gaylord C. Hall, '96.

The previous Board of Governors, of which Mr. Lester D. Gardner was president, found the Club saddled with a large debt and suffering generally from the neglect of the war and the period immediately following. The Board undertook the task of putting the Club on a sound financial footing with the result that the indebtedness has been reduced, according to the last published statement, from $18,000 to something less than $5000. Heroic measures were necessary to bring about this improvement and the restaurant, which had been operating constantly at a loss, was discontinued. This was a regrettable, and we hope not a permanent, arrangement. We were fortunate in being able to share the restaurant facilities of the National Arts Club which is next door.

The work of the new Board, under President Sheridan, has been along the same line of judicious economizing, reducing the indebtedness, and getting the finances and membership in such shape that we can look forward with confidence and undertake with some assurance of success the plans which the Board has in mind for improving the Club and making it play a more prominent part in the life of Technology. These plans, it is hoped, will be announced in the next issue of the REVIEW.

The fall season started off with a greater show of life around the house than 17 Gramercy Park has seen for some time. Every room and bed available for permanent occupancy is taken and few nights go by when the transient rooms and the beds in the dormitory are not occupied. An increasing number of younger men drop in during the evenings. Under the leadership of Dr. Duff a bridge tournament has been arranged and every Thursday night since the middle of October has found some six or seven tables of bridge in play. A prize is given to the holder of the highest score for each evening and the grand prize of the tournament is to be furnished by the Board of Governors.

On Monday evening, November 1, the first entertainment of the season was held. Mr. Thomas F. Woodlock, former editor of the *Wall Street Journal* and now connected with the American International Corporation, was the speaker. Following the talk, which was most interesting and greatly appreciated by the members, came the Hallowe'en party. The programme followed that of last year with the addition of several new stunts.

Mr. King, the new chairman of the entertainment committee, announced in the notice for this first "get-together" that it was to be followed by a series of smokers and entertainments which the committee planned to hold provided they meet with the support of the Club. Considerable encouragement was given the plans by the success of the first affair. — *Edward P. Brooks, 628 East Fifth Street, Brooklyn, N. Y.*

PHILADELPHIA — TECHNOLOGY CLUB OF PHILADELPHIA.— The first meeting of the Technology Club of Philadelphia for 1920-21, was held at the Engineers' Club, 1317 Spruce Street, Wednesday evening, October 6, 1920.

Mr. George Atwell Richardson of the Midvale Steel and Ordnance Company spoke on Steel, the Giant Industry. This was a most interesting paper, illustrated with moving pictures taken of the properties and equipment of the Midvale Steel and Ordnance Company, Cambria Steel Company and subsidiary companies, and featuring every step in the production of iron and the manufacture of steel and steel products, from the mine to the finished article.

The Technology Club of Philadelphia is now well under way with its fall and winter program and we are very glad to say that there seems to be a continually increasing interest in the Club's activities. This, we feel, can only result in good to the Alumni of the Institute and the Institute itself.

The Club has invited the Musical Clubs to give a concert in Philadelphia on December 29, and a committee is already at work arranging details. We have secured the entire house of the Philomusian Club, a new and popular social center, and we plan to make the affair a landmark in Philadelphia Club activities.

The Club is arranging for some exceptional speakers during the winter, among which are — Mr. Elisha Lee, vice-president of the

Pennsylvania R.R., Mr. Matthew C. Brush, president of the Hog Island Shipyard, Mr. Andrew Wright Crawford, secretary of the Philadelphia Art Jury.

The Club is fortunate in numbering among its membership many such distinguished gentlemen and it is indeed a gratifying thing to feel that year after year men of this type, from our own number, are willing to address the Philadelphia alumni. We want them to know that we appreciate their interest.

At the present time we are meeting every Thursday noon for lunch at Wanamaker's, Eighth Floor, Men's Lunchroom.

We want every Tech alumnus to know that the Club meets on the first Wednesday of each month, at the Engineers' Club for dinner at 6.30, followed by a social and educational evening, that those of us who can meet for lunch every Thursday at 12 o'clock, and that to these and any other of the Club's activities every Tech man is cordially invited.—*Marshall B. Dalton, Secretary, 22 South 15th Street, Philadelphia, Pa.*

Rochester — Technology Club of Rochester. — There have been practically no Technology activities in Rochester since the meeting in February when Mr. George Eastman was unanimously elected a life member of the Technology Club of Rochester. An engrossed copy of the resolutions which were passed by the Club and personally signed by each member was presented to Mr. Eastman as a mark of esteem in which he was held for his magnificent gifts to Tech and to the City of Rochester and as a slight token of appreciation for them. Twenty-two members of the Club were present at the dinner after which moving pictures were enjoyed.

The Club planned to have their annual picnic in June, but it was given up, as on the date set it was found that other things had come up so that a great majority of the members would be unable to be present.

During the year Walter G. Bent, Class of 1905, has taken up his residence at Harrow, England, where he has gone to take charge of the Kodak Limited factory. Another member who has left the city is Herbert Williamson, Class of 1917, who has taken a position as superintendent with the Tennessee-Eastman Corporation of Kingsport, Tennessee, where he will have charge of the manufacturing. There undoubtedly have been other changes which have not come to the attention of the secretary.

The annual dinner meeting of the Club for the election of officers for the ensuing year will be held in the early part of November. — *Henry H. Tozier, '96, Secretary, 26 Jones Avenue, Rochester, N. Y.*

Washington. — Washington Society of the Massachusetts Institute of Technology. — Our last report noted that weekly luncheons of the society have been arranged for Tuesdays, 12.15, at the University Club. These luncheons are proving very popular and draw an ever-increasing attendance, the average now having risen to about

fifteen members and no co-eds. The latter, however, will be admitted on the same qualifications as their brothers, namely, sixty-five cents per luncheon. Several of the other local college alumni organizations are holding similar luncheons at the University Club, but the Massachusetts Institute of Technology attendance outnumbers the others two to one. All Washington Tech men are urged to come once. Further urging will be unnecessary. Visiting Tech men are cordially invited.

The society has accepted the offer of the M. I. T. Combined Musical Clubs to give a concert in Washington Thursday evening, December 30. It is planned to follow the concert with a dance. The best hall and floor available in the city (Rauscher's, Connecticut Avenue) has been engaged. Arrangements are being made by a large and energetic committee ably headed by J. A. Tobey, as chairman. Lt. C. H. Chatfield and A. E. Hanson are respectively secretary and treasurer of this committee. The following sub-committees are charged with responsibility for the various details as follows: Hall and arrangements, H. N. Calver, chairman, Lt. W. C. Wilson, Lt. W. Brown; Dance, Lt. R. D. MacCart, chairman, Lt. C. J. McCarthy, P. Cristal; Tickets, A. E. Hanson, chairman, Capt. C. Read, R. W. Morse; Publicity, Lt. E. W. Rounds, chairman, John Boyle; Patronesses, A. M. Holcombe, chairman, L. S. Simon, M. O. Leighton; Reception, W. C. Dean, chairman, Capt. C. H. M. Roberts, H. C. Morris; Underwriting, G. A. Ricker, chairman, P. L. Dougherty, O. C. Merrill.

The ticket, reception and underwriting committees appeal to the friends of M. I. T. in Washington and the families of students, for support. The reception committee must arrange entertainment and lodging for the visiting Musical Club members, and will be glad to hear from friends who can take care of one or two of the visitors. The underwriting committee is charged with securing guarantee subscriptions which will be called for only in case the receipts fail to cover expenses.

The secretary has recently learned of the departure from Washington of the following: Capt. Thomas D. A. Brophy, '16, 25 Broad Street, New York City; M. D. Hersey, '10, Associate Professor, Massachusetts Institute of Technology, Cambridge, Mass.; H. E. Smith, '87, 1520 Grand Central Terminal, New York City; W. C. Whitney, '00, Newtonville, Mass. —*A. E. Hanson, Secretary, 1410 H Street, N. W., Washington, D. C.*

NEWS FROM THE CLASSES

1868

ROBERT H. RICHARDS, *Secretary*, 32 Elliot Street, Jamaica Plain, Mass.

The following letter was written by the secretary to Stuart M. Buck, Bramwell, West Virginia:

"My dear Buck:

I am very sorry to hear you have met with such a misfortune as to require the amputation of your right leg above the knee. I sincerely hope you will be able to get the substitute well fitted and be able to use it with reasonable ease. We do not realize how useful legs are until we lose them. Fortunately for me I still have both, but I can sympathize with you all the same.

We are up here (Randolph, N. H.) for the summer, hoeing our potatoes and carrots and hoping we may have a little sweet corn which is always very doubtful in our high latitude, about fifty-five, and our high altitude, 1860 feet above the sea.

I am just off for the meeting of the American Institute of Mining and Metallurgical Engineers at Lake Superior, August 20 to 30. I hope to meet lots of old friends.

Kindest regards to Mrs. Buck, tell her I often tell of Mr. Edwards and of the trip to Pikes Peak to get the plant he wanted for his butterfly."

1870

CHARLES R. CROSS, *Secretary*, 100 Upland Road, Brookline, Mass.

In connection with the fiftieth anniversary of graduation of the Class of 1870 it seems proper to put on record the following list of deceased members, compiled chiefly from the records of the Alumni Association. Death has made sad havoc in the ranks of the Class in recent years.

NECROLOGY

C. E. Avery, November 14, 1916; G. A. Avery, May 12, 1912; W. N. Bannard, January 31, 1919; E. D. Bolton, March, 10, 1916; F. Brooks, January 10, 1919; E. N. Buckingham, December 23, 1916; S. Cabot, November 26, 1906; S. M. Cary, April 1, 1905; E. K. Clark, September 10, 1878; W. Clark, March 12, 1917; R. H. Curtis, June 8, 1897; S. C. Earle, December 12, 1913; R. F. Fisk, April 10, 1913; J. M. Forbes, February 19, 1904; F. L. Fuller, January 30, 1920; J. L. Hillard, March 4, 1918; C. D. Lamb, 1872; W. W. Lee, June 14, 1911; E. Lombard, November, 1886; N. F. Merrill, October 26, 1915; C. A. Morse, March 21, 1883; H. O. Preble, May 21, 1871; A. M. Ritchie, December 25, 1916; T. F. Tillinghast, January 5, 1919; E. K. Turner, May 6, 1915; C. M. Weiss, May 20, 1889; H. K. White, June 21, 1881; C. A. Wilbur, December 18, 1918; L. F. J. Wrinkle, March 30, 1904.

The following are no longer living, but the dates of decease are not ascertainable: G. L. Clark, F. N. Footman, J. S. Francis, H. Gardner, G. R. Hardy, G. L. Lothrop, C. E. Pullen, J. Ritchie, H. M. Russell, C. H. Sprague, F. Wells.

The members of the Class of 1870 living and dead alike have served their day and generation in such manner and to such extent as their abilities and resources allowed. Of those whose stay at the Institute was sufficiently prolonged to allow them to enter fully into its spirit, many have shown their allegiance by help of various kinds and where this has been possible by material aid. Two such may be particularly mentioned here:

It will be recalled by many among the alumni that the students of the present generation owe the Cabot Medals, which are awarded annually for improvement in physical development, to Samuel Cabot, who, as student, alumnus and later as a life member of the cor oration, was always a most enthusiastic believer in the Institute and its training, and was likewise a lover of all reasonable athletic sport.

Mr. Cabot left the Institute shortly before the close of 1869–70 to accept a responsible professional position in his chosen field of chemistry. He came afterwards to be one of the most widely known and influential industrial and manufacturing chemists in the country and, as a member of the Visiting Committee of the Department of Chemistry, he gave much time and earnest thought to the development of the chemical instruction in the Institute. At the time when it was under consideration to move the Institute to a site in Jamaica Plain, Mr. Cabot presented to it a valuable and beautifully situated dwelling house, his former residence, in Brookline, not far removed from the proposed location. Subsequently to his death in 1906, Mrs. Cabot in 1912 and 1913 gave to it the sum of $50,000 which forms the Samuel Cabot Fund for the furtherance of study in Industrial Chemistry. On June 30, 1920, this amounted to $66,586.

From Edward K. Turner the Institute received by bequest in 1916 a fund to be applied for the benefit of the Department of Civil Engineering, which at the close of the last fiscal year of the Institute, June 20, 1920, amounted to $210,698. It was provided in Mr. Turner's will that one-fourth of the annual income of the fund should be retained and added to the principal.

Throughout his whole professional life Mr. Turner showed a warm interest in the Institute. He served the Alumni Association in various ways in its earlier years. He was a member of the Committee on the Alumni Fund for several years, and at a later time was the representative of his Class on the Alumni Council. He was not an impulsive man and his bequest was evidently due to his high appreciation of what the Institute had given to him in its beginning and what it had stood for in this country as an exponent of the highest professional education for half a century. Such a bequest to the Institute from an alumnus of its earliest years, who had through his life followed the profession which it taught him, would seem to merit fuller recognition than the simple record of the *Treasurer's Reports*. The Hayward Professorship of Civil Engineering has always been held by the head of that department, its title being an acknowledgment of a gift of $18,800 from an early friend of "Technology." It would have been welcome to many of his fellow alumni, and to his personal and professional friends, if the Institute had seen fit to establish a Turner Professorship of Railway Engineering.

1872

C. Frank Allen, *Secretary*, 88 Montview Street, West Roxbury, Mass.

JAMES AMORY HERRICK

It is with especial regret that we are obliged to record the death of James Amory Herrick, one of the very early graduates of our Institute and one of the original members of the American Society of Mechanical Engineers, which he joined in 1880.

Mr. Herrick was born at Nashua, N. H., on January 17, 1850, and died at Merrimack, N. H., on September 10, 1920, in his seventy-first year.

His parents were the late Moses Augustus Herrick and the late Jane (Riply) Hubbard, formerly of Winchester, Mass. He was of Puritan Pilgrim stock, his ancestry going back to Henry and Editha (Laskin) Herrick, of Salem, Mass., who came to this country from England in 1624, while on his mother's side he was directly descended from John and Priscilla (Molines) Alden, passengers on the "Mayflower," who landed at Plymouth, Mass., in 1620.

His education was obtained in the public schools and the Massachusetts Institute of Technology, graduating in 1872 and taking a post-graduate course in 1873.

Mr. Herrick's first work was at the former Nashua Iron and Steel Co., Nashua, N. H., where he built the first 15-ton open-hearth furnace in this country in place of the original 5-ton furnace at these works. He also installed and used the first gas producer (Siemmens) which was imported to this country from England by his father, then treasurer of the above company, employing the principle of the direct gasification of low-grade coal to melt the steel, and continued in charge of the production of steel for this company until 1878.

He then went to Pittsburg, Pa., designed and erected a 17-ton open-hearth steel plant together with a 17-ton hammer plant for Park Brothers and Co., also completed an open-

hearth steel plant and rolling mills, designed by Alexander L. Holley, New York, in which were installed the first mechanically operated furnaces of the Pernot System in this country.

In 1882 he joined the engineering forces of H. A. Gadsen and Co., New York, and designed and erected the Standard Steel Castings Co.'s factory at Chester, Pa., which is now the largest plant of the American Steel Foundries Co. in the Eastern States. In 1884 he was sent abroad to erect some special furnaces at London, England, and to visit and collate information from many steel plants in Great Britain and on the Continent.

During 1885 he returned to New York and in 1886 succeeded the firm of Gadsen and Co., remaining in business under his own name, also being associated with H. L. Dixton and Co., Pittsburg, Pa., and David Townsend, Philadelphia, Pa., and making his headquarters at New York under the style of a Mechanical and Gas Engineer. He retired from business about two years ago, his health having failed, at which time he sold his patents and business to the Smith Gas Engineering Co., of Dayton, Ohio.

Among the plants that Mr. Herrick designed and erected were the John Illingworth Steel Co., Philadelphia, Pa., Diamond Drill and Machine Co., Birdsboro, Pa., Congdon Brake Shoe Co., Chicago, Ill., National Steel Casting Co., New Haven, Conn., Republic Enameling and Stamping Co., Buffalo, N. Y., Allison Tube Co., Philadelphia, Pa., El Paso Steel Casting Co., El Paso, Tex., N. E. Steel Casting Co., Everett, Mass., Longview Steel Casting Co., Longview, Tex., Century Steel Co., Poughkeepsie, N. Y., Lloyds Tube Mills, London, England, and Mariopol Tube and Furnace Mills, Mariopol, Russia.

Mr. Herrick alsos pecialized in the Herrick Gas Producers, both static and mechanical, for use with both anthracite and bituminous coal, in furnaces both open hearth and regenerative, in gas and air valves of the direct and reversing type and various accessories, and has made many important installations, one item alone including over 500 Herrick Gas Producers, during his business career.

He was a prolific inventor in his specialty, having taken out over forty United States patents, many of which covered basic principles, and also many foreign patents and was rated as the dean of the producer gas business in this country. His passing is a distinct loss to the engineering profession in his chosen specialty where he will always be well and favorably remembered. In person he was kind, genial and of a specially lovable disposition, which made many true and tried friends for him and whom he retained throughout his life.

He was a member of the American Society of Mining Engineers, joining in 1873 and contributing a number of articles for their Transactions, also was a member of the Technology Clubs at New York and Philadelphia. He was a member of the order of Knights Templars, affiliated with St. John's Commandery, No. 4, of Philadelphia, Pa.

Mr. Herrick leaves no immediate family, his wife, Mary Ada (Davis) and two sons, Edward A. and Cecil having predeceased him. Interment was made at Bayside Cemetery, Lakeport, N. H., in his family lot beside his wife and sons. A sister, Mrs. Amelia (Herrick) Pond, and three brothers, William H., Rufus F., and Charles H. Herrick, all residing at Winchester, Mass., survive him.

1875

EDWARD A. W. HAMMATT, *Secretary*, South Orleans, Mass.

Like the shortage of coal, there is a shortage of news from the members of the Class. The only items which have come to my notice are the deaths of classmates, Ruddick, Dabney and Willard.

Dr. William H. Ruddick, son of Dr. James and Ellen (Skinner) Ruddick, was born at Moncton, N. B., February 25, 1845, and in 1859 came with his parents to Boston. In April, 1862, he enlisted as a private in the 7th Massachusetts Battery and was promoted to hospital steward. Later he was assistant surgeon in the 7th infantry (Massachusetts Volunteer Militia) and 1st lieutenant of the Light Battery. At the end of his war service he became a resident of South Boston and lived there until his death. He graduated as an M. D. from Harvard in 1868 and took special courses at the Massachusetts Institute of Technology with the Class of 1875. Later he received degrees from Harvard and Tufts; and studied at the University of Vienna, and in the hospitals of Paris and London. He

was a member of many college medical and social organizations, and was past commander of E. W. Kinsley Post 113 G. A. R. He married Sophia Ada Means on March 19, 1872, and they had a son, William A. Ruddick. His wife died in 1901 and on January 30, 1903, he married Margaret Francis Gannon, and had a daughter, Mary, born June 17, 1908. His death occurred on April 8, 1920.

Herbert Dabney, son of Samuel W. and Harriet (Webster) Dabney, was born at Fayal, Azore Islands, January 15, 1853. He was a student in chemistry at the Massachusetts Institute of Technology for three years with the Class of 1875, and after leaving Tech was in business at Fayal until 1890. Then he went to California, being engaged in ranching and railroad management. In 1902 he came to Boston as treasurer of the Walter Baker Co. Ltd., with whom he continued until his death, which occurred suddenly on June 26, 1920, as he was planning to go on a vacation. September 24, 1894, he married Miss Minnie L. Horton, who survives him.

William P. Willard, son of Dr. Henry and Hannah (Hincks) Willard, was born in Dorchester, Mass., April 4, 1854. He graduated at the Massachusetts Institute of Technology with the Class of 1875 in the civil engineering course. After serving several years with Clemens Herschel, E. W. Bowditch and Fred M. Hersey he entered the office of the city architect in Boston in 1883, and in 1888 became connected with the street department, sewer division, where he was employed up to the time of his death. November 23, 1881, he married Elizabeth Adams and they had a son and daughter. His death occurred July 1, 1920.

1882

WALTER B. SNOW, *Secretary*, 60 High Street, Boston, Mass.

At the last Class gathering the celebration of the Fortieth Anniversary in 1922 was discussed with the hope that if plans were laid far enough ahead this occasion might be made notable in the Class annals. In view of our decreasing number it is certainly likely to be the last opportunity for a very general get-together.

An interesting letter to the secretary from Benjamin I. Lewis, M. I. T., '17, son of Lloyd G. Lewis, contains this:

"Regarding father's rather meagre participation at Alumni meetings, he has always said that he was waiting until Ben and he could go together. But since becoming eligible I have not been so situated as to be able to hold him to his promise. I hope, however, that we three may sometime meet."

1884

H. W. TYLER, *Secretary*, M. I. T., Cambridge, Mass.

George F. Lull writes from Trinity Paper Mills, Dallas, Texas:

"My dear Tyler:

You may remember that on the boat "Tech" at our trip to Plymouth, I told some of our fellows I was headed this way. It was true, for I am here. Have bought land, machinery, contracts for buildings and hope to get back into the paper and pulp game. No frosts they say till about January 1. How's that? Too bad you haven't a son big enough to come into this land of sunshine.

We are capitalized for $1,000,000. I hope to put it to $5,000,000, and to organize the biggest paper pulp plant in the South. I hope to hear from '84 frequently.

1889

WALTER H. KILHAM, *Secretary*, 9 Park Street, Boston, Mass.

Last year Whipple was given a Sabbatical leave of absence from Harvard University. He went to Europe in January and returned in September. These eight months were devoted to work with the League of Red Cross Societies as Chief of the Department of Sanitation in the General Medical Department. The headquarters of the League were in

Geneva and most of his time was spent there, but he made a trip of inspection to Roumania to study the typhus situation for the League of Nations. He also devoted some time to visits to universities in England and France in order to study methods of public health education. He spent considerable time in an attempt to organize an international School of Public Health, through the co-operation of the universities of Switzerland with the League of Red Cross Societies. This school has not yet taken shape, but its prospects are promising. During his eight months' stay in Europe, Whipple had a good chance to observe many European conditions, as his work brought him in contact by correspondence with many different countries. The League of Red Cross Societies is a joint affair, which includes the Red Cross Societies of thirty nations. Whipple is now back at Harvard, but he will retain the position of consulting sanitary engineer to the League.

1890

GEORGE L. GILMORE, *Secretary*, Lexington, Mass.

George E. Hale, '90, director of Mt. Wilson Observatory, and of the Carnegie Institution of Washington, has just been appointed chairman of the Division of Foreign Relations of the National Research Council. Headquarters of the Council are at Washington and these appointments are for the present year, which began July 1, 1920.

By the death of Mrs. Charlotte A. Spring, fifty thousand dollars was left to Technology, in memory of her nephew, Andrew Hastings Spring, the money to be used as the officers of the institution desire.

Many of you will recall that Hastings was a member of our Class, and died during our junior year.

A letter was recently received from Charles H. Alden, whose address now is 400 Boston Block, Seattle, Washington.

Charlie was overseas as a captain in the Quartermaster's Department for many months. He has recently been elected to the Board of Directors of the American Institute of Architects. Since returning from the war he has been getting back into architectural practice. He is president of the Washington State Chapter of the American Institute of Architects, and the mayor of Seattle has recently appointed him on the City Zoning Commission.

John B. Blood, who has resigned his commission in the Navy, is now located at Interstate Commerce Building, Room 804, Washington, D. C. — Mr. William P. Flint's present address is, Lakehurst Proving Ground, Lakehurst, N. J. — Mr. J. Edgar Borden's present address is, Submarine Division, Portsmouth Navy Yard, Kittery, Maine.

L. C. Wason, President of the Aberthaw Construction Company, had a very interesting article on "Will the cost of building construction soon decline?" in the July 19 issue of *Current Affairs*, the weekly publication of the Boston Chamber of Commerce. — Winthrop Coffin is a director of the Boulevard Trust Company, recently organized in Brookline, Mass. He is also a trustee of the Brookline Savings Bank, and a director of the Boston Elevated Street Railway Company. At the Pilgrim Tercentenary meeting of the International Congress of Free Christians and other Religious Liberals, at Boston and Plymouth, October 3 to 7, Prof. W. Z. Ripley spoke on "The Free Churches and the Tasks of Social Betterment." — A card was received from Darragh deLancey in September from New Orleans. Darragh is connected with the Shipping Board and is down there trying to reach a wage agreement for the coming year.

The latest addition to the second generation of '90 is Miss Margaret Catherine Swanton, born September 26, 1920, in Washington, D. C. Fred Swanton is the proud father, and has the congratulations of the Class. His home address is 3808 Yuma Street N. W., Washington, D. C. He has recently moved to this new location in the suburbs, and would be pleased to see any of the fellows of the Class at any time in Washington.

Charles Hayden is a member of the Metropolitan District Committee of the United States Chamber of Commerce that is raising a fund to erect permanent headquarters in Washington.

Charlie was recently in receipt of hearty congratulations on the event of his fiftieth

birthday anniversary. Charlie's firm, Hayden & Stone, was founded twenty-eight years ago, and today Charlie is a director in some fifty prominent corporations

Choosing between an indefinite shutdown and a decrease in wages, two thousand employees of S. Slater & Sons, Inc., South Village woolen and worsted mills, will return to work on full time Monday, accepting a 15 per cent cut in pay.

The present scale has been in force since June 1, when a 15 per cent increase was given and when the mills went on half time.

The mills were closed Tuesday night because of "slack business" and the operatives were told to look for work elsewhere and if they got jobs to hold on to them.

Treasurer Spaulding Bartlett, '90, in conference with superintendents, department heads and office executives, just before paying off time this afternoon, agreed to put the proposition before the operatives as they returned for their money. With few exceptions they were willing to return to work on full time with the cut, as they feel they will earn more on piece work than they have been earning during the summer.

1891

HENRY A. FISKE, *Secretary*, 275 West Exchange Street, Providence, R. I.

Next year is our Thirtieth Reunion. Plans are already under way for the best one yet. We will hope to send out notices two or three months in advance.

At the present time there is in preparation a new address list which we will have printed and distributed. If you have changed your business or mailing address since the Massachusetts Institute of Technology Register of May, 1920, please notify the secretary at once.

We cannot locate the following men, George W. Favor, Medorem W. Greer, George Putnam. If any one knows of their whereabouts, please notify the secretary.

1892

JOHN W. HALL, *Secretary*, 8 Hillside Street, Roxbury 20, Mass.

Major Murray Warner, II, United States Army Engineer Corps, stationed at San Francisco, died there after he had been stricken with a sudden illness while playing golf. Major Warner, as emergency officer, built Camp Dix, N. J., and previous to entering the army had been engaged on large engineering enterprises in China.

1894

S. C. PRESCOTT, *Secretary*, M. I. T., Cambridge, Mass.

Although the reunion is several months behind us there are a few notes regarding '94 men which may be of interest. The Class was represented by about fifteen men at the Class dinner which was held at the University Club, those from out of town who were present being our president, Bovey, from Minneapolis, King from New York, and Lovejoy from Rochester. Lovejoy has been elected vice-president of the Alumni Association, an honor which the whole Class will regard as specially deserved. The secretary was glad to welcome some of the members at a small tea at his house on the Sunday afternoon before the reunion, and wishes that a great many more might have been present to meet Bovey, Mrs. Bonesteele, Mrs. Delancey and her daughter and Mrs. Sawyer. It was very pleasant for Mrs. Prescott and the secretary to meet the wives of so many of our classmates, and we shall hope for many opportunities to do so in coming Class and general reunions.

As usual, Abbot has been doing some wonderful scientific work. He was unable to be at the reunion because of some observations which it was necessary for him to obtain

in the high Andes. Abbot's studies on solar radiation have taken him to remote and unusual parts of the earth, and we hope that at some reunion he may be able to tell us of the varied experiences he has had in these journeys. — Harry Batcheller is operating a mine in New York State, having terminated his services with the United States Labor Board, where he did valiant service in settling disputes between labor and employers during the war period and immediately after. — E. L. Andrews is now with the Chase Electric Company, 105 South Dearborn Street, Chicago.

C. W. Dickey is practicing architecture at 357 12th Street, Oakland, Calif. — W. H. Weston sends the address of Box 375, Hartford, Conn. — F. M. Noa, from whom we have not heard for several years, is in charge of the high school at Blackwell, Oklahoma. — J. W. Phelan is Associate Professor at Tech and is immediately responsible for some hundreds of freshman in General Chemistry, both in lectures and laboratory work. He is a most successful teacher. — H. W. Gardner has been made Professor of Architecture, and holds forth in the old Rogers Building, which has been transformed in recent years, and is now the home of the Architectural Department. — A. M. Robeson is now living in the Island of Jersey, Channel Islands, and would no doubt be delighted to greet any of his classmates who happen to visit the islands during European travel.

The War Record Book, which is just being sent out will give the military and civilian war records of something over two score of '94 men, and should be obtained by every member of the Class, as it is said to be a most interesting and unique story of the efforts of over seven thousand Tech men who did their bit in the recent war. If you have not subscribed, a letter to the War Records Committee at the Institute will bring you the information about it. The edition is limited and applications should be made at once.

If the members of the Class will send an occasional line to the secretary telling of their achievements, travels, changes of address, etc., it will be much appreciated as the whole Class can thereby learn through the REVIEW of the doings of individuals. Try it, and see what a grist of news the next REVIEW will have.

1895

WALLACE C. BRACKETT, *Secretary*, 105 Washington Street, Boston, Mass.

The '95 Class Book, celebrating our Twenty-Fifth Anniversary, is on the press and will probably be ready for distribution about December 1, 1920.

The book contains about 200 pages, among which is a portrait section of 16 pages containing likenesses of 124 men and a directory of 140 pages giving names, addresses, occupations, biographies and statistical data of every one of the living graduates, with the exception of two, whose addresses are unknown. Besides these names, the directory also contains similar data relative to all men who ever had any substantial connection with the Class of 1895, 448 in number. A picture section of 16 pages is also included, as well as a Class History, a chapter on Statistics, and one on Personal News and Notes. Have you sent in your subscription? If not, send at once to W. C. Brackett, Treasurer, '95 Book Committee, 105 Washington Street, Boston, Mass. The price of the Book is $5.00. *Edition is limited in number to subscription list.*

Fom a recent copy of the Boston *Transcript* we note the engagement of Miss Ruth Dwight, daughter of Mrs. Dwight and the late Dr. James Dwight, 225 Beacon Street, Boston, to Charles Willard Bigelow.

Professor Elizabeth F. Fisher of Wellesley College recently gave the first of a course of thirty lectures on "The Geography of Boston" at the Rogers Building, 491 Boylston Street. The course is under the direction of the University Extension and has been arranged at the request of many teachers in Boston and surrounding towns.

The lecturer stated that the aim of the course will be to point out the geographical factors which have contributed to the industrial and commercial development of Boston since its early settlement, to trace the inter-relation between these natural factors and the man-made elements in the present status of Boston, and to forecast the probable development of the city's activities.

At a conference held under the auspices of the Massachusetts Chamber of Commerce in Boston on October 14, 1920, Franklin T. Miller, of the F. W. Dodge Co., and special

assistant to the United States Senate Committee on Reconstruction and Production spoke on the Housing Situation. He pointed out in detail the chain of events which have hampered the progress in building, and made suggestions as to what could and should be done to bring conditions back to normal at the earliest possible moment. Quoting from this portion of his address, he says:

"In answer to the question, 'What can be done about the housing crisis?' without going into particulars, I would reply, 'Reverse so far as you can the unfortunate chain of events which caused the crisis.'

Private, as well as governmental, action is necessary to reverse this chain of events. Business must play fair, labor must be efficient, and the citizenry must be thrifty, buying only essential commodities and investing in things that have lasting value and earning power.

There is no royal road by the way of governmental subsidy and regulation. Rent regulation will not build houses, and governmental subsidy cannot absorb ever-increasing costs due to inefficient labor, irregular transportation, and coal and material speculation. The Government is not capable of supporting its citizenry. Police power and subsidy, which are necessary in an emergency, must be resorted to with extreme caution lest part of the people be made dependents.

As primary undertaking, the Government may insure the regular and cheap delivery of raw materials necessary to reduce the cost of the manufacture of building materials, by bringing about continuity in manufacturing processes and reduction in the cost of fuel. Prompt and cheap delivery of the finished product would enable the contractor to bid by assuring him of stable deliveries and stable prices.

Through governmental action, organized co-operation may be brought about between our coastwise shipping, our inland waterways or terminals, and our railroads, so that the people may enjoy the full advantage of their entire transportation plant.

Through legislation, securities or mortgages for the building industry may be made tax-exempt.

Legislation may be passed revising the excess profit tax.

Governmental consideration may be given to a system of long-term banking in which long-term deposits may be used for long-term loans. Such a system need not in any way compete with the Federal Reserve System, but should supplement it.

As immediate emergency measures, the Federal Government can well curb the export of coal, reduce the rates on coastwise shipping and enforce the anti-profiteering laws."

F. E. Matthes, '95, scoutmaster of Troop I in Washington and topographic inspector of the United States Geological Survey, will accompany Brooklyn scouts this summer on a trip to the Far West offered by the Far Western Travelers' Association. He graduated in Course I, Civil Engineering, in the Class of 1895. He has done topographic work for the Geological Survey since 1898, starting as assistant topographer. Two years later he was made topographer and mapped the Rockies just south of the Canadian boundary line and his work resulted in the creation of the Glacier National Park. Matthes mapped the Grand Canyon of the Colorado River, one of the most difficult pieces of topographic work undertaken by the Geological Survey. Then he spent two summers in mapping the Yosemite Valley. In 1910 he was assigned to map Mt. Rainier and since then he has been making a geological study of the Yosemite Valley. During the war he made various geological investigations in reference to army cantonments and translated from the French "The Manual of Artillery Orientation Officer." He has been connected with the scout movement for the past five years and Troop I of Washington, D. C., did excellent work under his guidance.

Clifford B. Sanborn, of Course IX, has recently been nominated by Governor Coolidge to be presiding justice in the District Court of Northern Norfolk, and is now His Honor Judge Sanborn.— George A. Cutter has recently been made vice-president and director of The Industrial Company at 70 State Street, Boston.— Luther Conant has recently resigned his positon as chief of research staff of the National Industrial Conference Board and is now associated with A. F. Bemis on special research work.

"A man, so beloved by his employees that they always turned to him in trouble." This was the tribute paid by employees and friends of Edward McB. Dexter, 280 Knapp Street, second vice-president and director of the firm of Roundy, Peckham & Dexter, who died suddenly Wednesday, October 6, 1920, in the Milwaukee hospital after an operation.

For the last eighteen years Mr. Dexter has been with the firm. He was a member of the board of trustees of the Immanuel Presbyterian Church. At various times he has been superintendent of the Sunday School and worked on the music committee. He also was one of the national officers of the Sigma Chi fraternity.

Mr. Dexter attended the University of Wisconsin for three years and the Massachusetts Institute of Technology. He returned to Milwaukee, where for a number of years he was associated with the Milwaukee Board of Fire Underwriters. Here his work was to supervise all electrical work done in the city, to see that fires did not occur. In this he was very successful. Some years thereafter he was associated with the Wisconsin Telephone Co.

Mr. Dexter was born in Shelbyville, Ill., in 1870, and had lived in Milwaukee since he was nine years old. He is survived by his widow and three children.

Changes of Address

Charles F. Eveleth, Care of Goethals, Wells & Co., Inc., 150 Nassau Street, New York City; Gerard H. Matthes, United States Engineers' Office, 605 Temple Court Building, Chattanooga, Tenn.; William A. Hall, vice-president and general manager of the Murray & Tregurtha Co., Atlantic, Mass.

Did you know that the average '95 man in the year 1920 was 48 years old, 5′8½″ tall, weighed 165 lbs., and had two children? There are many things you don't know about '95 men.

The Class Book, ready in December, contains data and statistics which all '95 men will want. Send in your subscription at once.

1896

Charles E. Locke, *Secretary*, M. I. T. Cambridge, Mass.

J. Arnold Rockwell, *Assistant Secretary*, 24 Garden Street, Cambridge, Mass.

All men who attended our twentieth reunion at Saybrook, Conn., will be shocked to hear of the death of our good host, Horatio C. Chapman, which occurred Sunday, September 26, 1920. Chapman treated us so royally and entered so wholeheartedly into the spirit of our reunion that he became as one of us and to cement the relationship, he was made an honorary member of '96. It was a matter of regret to him that he was unable to be present last June on the occasion of our reunion at Falmouth, but he remembered us with a most cordial message at that time. The following excerpt from the home paper supplies the details: "Horatio C. Chapman died at his residence 'The Elms' on the Boston Post Road early Sunday morning. Death was due to ptomaine poisoning caused by acute peritonitis. Mr. Chapman was ill only a few days and, as his illness was not considered of a grave nature, the news of his death came as a shock to the people of this vicinity. The deceased was born in Westerly, R. I., fifty-two years ago. He was proprietor of the Green Farms Inn before coming to Saybrook. Shortly after his advent to this town he assumed the managership of the famous Fenwick Hall, the high class hostelry of the exclusive Fenwick colony. Good business foresight prompted him to purchase the old Morgan place opposite the town pump on the Boston Post Road where he established a fashionable café with the quaint name of 'Ye Old Saybrooke Inn.' The venture proved successful and within a few years the Saybrook Inn was classed with the most widely known hotels in New England. Last summer Mr. Chapman purchased 'The Elms,' one of the prettiest residences, on Saybrook's main thoroughfare. Besides his wife and mother, there are left to mourn him two sons, Horatio, a student at Andover Academy, and John; also one daughter, Elizabeth. The passing of Mr. Chapman, who was an Elk and a Mason, takes from Saybrook one of its most active and congenial characters, for it is a well-known fact that no individual enjoyed a wider circle of friends amongst the members of the community. The remains were taken to Westerly, his natal city, and interment was in River Bend Cemetery of that place."

Your secretary sent a message of sympathy to Mrs. Chapman and in her response she spoke of Mr. Chapman's adoption by the Class as one of the bright events of his

life and remarked especially that it gave him much pleasure to have a '96 man drop in on him as some have done.

Belated news has also been received of the death of Ellis W. Prince who was with the Class of '96 for two years in Courses II and VIII. He was the son of Edmund W. Prince and came from Carlston (now Rutland), Florida. R. O. Elliot reports that Prince passed away on February 4, 1902.

The secretary passed through Thomaston, Maine, this summer and tried to see Elliot personally but that particular day he had gone out on a boat trip and was not due back until late.

Avery Coonley died April 10, 1920. For a long time he had been located in Riverside, Ill., but more recently he had moved to Washington, D. C.

After recording the loss of the three foregoing it is a pleasure to be able to report the rejuvenation of our classmate, Charles J. Barnes of Redlands, California. Mr. Barnes was reported deceased by Mr. Rabbeth who was the local organizer for the endowment fund in that city last winter. Mr. Rabbeth confused Charles J. Barnes with another older man of the same family name but different initials who had died a short time previously. Fortunately the secretary had not written an obituary so that Charley Barnes will not be able to read a eulogy of himself.

Dr. A. W. Grabau, for eighteen years professor of paleontology and stratigraphy at Columbia University, and recognized as among the world's best known authorities on these subjects, has been called by the Chinese government to a professorship at the University of Peking. He left New York for San Francisco the latter part of September and sailed for China on the steamer "Nile," on October 2.

Dr. Grabau will remain for three years in China to build up geological research work for the Chinese government. He also has been appointed a member of the Chinese Geological Survey, and will conduct scientific work in various parts of the empire. He is the author of scientific works on fossils and strata which have been adopted by universities as standards.

Dr. Grabau, who was born at Cedarburg, Wis., in 1870, has received degrees from Harvard and the Massachusetts Institute of Technology and formerly was professor at the Rensselaer Polytechnic Institute, Troy, N. Y. Among his works are North American Index Fossils and textbooks on stratigraphy.

Mrs. Grabau was Mary Antin, the well-known lecturer.

Professor Elizabeth F. Fisher of Wellesley College has given a course of thirty lectures on "The Geography of Boston" at the Rogers Building, 491 Boylston Street. The course was under the direction of the University Extension and was arranged at the request of many teachers in Boston and surrounding towns.

The lecturer stated that the aim of the course was to point out the geographical factors which have contributed to the industrial and commercial development of Boston since its early settlement, to trace the inter-relation between these natural factors and the man-made elements in the present status of Boston, and to forecast the probable development of the city's activities.

"Gene" Hultman has received a new job which is some change from the sinecure that he formerly held as consulting engineer for the old West End Street Railway where his chief task was to entertain callers and to keep a watchful eye on the clock to make sure that he did not make too long a day. He was appointed by Governor Coolidge, on August 4, as chairman of the Commission on the necessaries of life in place of Brigadier-General John H. Sherburne whose resignation was announced the day previous. Hultman immediately became very active and has done good work in investigating and ameliorating living conditions in Massachusetts. In addition to his position as engineer for the West End Railroad and head of the commission on necessaries he is treasurer of the Republican Club of Massachusetts and has been prominent in Republican circles for several years.

George K. Burgess has been elected vice-president of the American Society of Testing Materials.

Sam Hunt reports that he made a one-hundred mile hike in July over the mountains of New Hampshire and Vermont, his route being from Concord, New Hampshire, to Rutland, Vermont. He was one of a party, mostly Bostonians, all of whom had the finest kind of a time.

Charley Morris has been stationed in the Supply Department at the Brooklyn Navy

Yard for some time past. In a recent letter he reports that he was most agreeably surprised in July when Moore dropped in to see him at the Navy Yard. They had a most delightful chat and session of reminiscences.

One item of news which caught the eye of the secretary during the summer was that Tom Bailey went picking blueberries down in Kingston and came across the body of a dead man. No further details were given.

Your assistant secretary made his customary trip to Harriman, Tenn., with Mrs. Rockwell, for two weeks in September, and on his return stopped for a few days with his parents in New Jersey. The secretary made a trip to Vermont in August and spent a few days visiting Jacobs who, with Mrs. Jacobs, was camping at beautiful Lake Willoughby where he was studying some of the fascinating geological problems of the district.

One of the greatest pieces of ill-luck that has befallen the secretary for a long time was his absence from town when Joe Howe from Houston, Texas, passed through Boston, about the middle of September. Twenty-five years nearly have elapsed since we had seen one another and if his visits to Boston are made only once in that period what chance is there that we may see him again? It is such things as these that seem to make our twenty-fifth reunion of tremendous importance. Engagement has been definitely made of the Tiffany cottage of the Wianno Club for next June, beginning June 17. Now is the time when every one should begin to lay his plans to be present for our twenty-fifth reunion at that time and not only plan for himself but try to get other fellows, fellows whom you have not seen for years but whom you would like to see, to be there as well. Announcements regarding our reunion will be issued periodically as needed but it is not too soon to begin to work up enthusiasm for it.

The following changes of address have been received: Mary E. Dann, 17 West 12th Street, New York, N. Y.; Frederick E. Field, 135 Ballantyne Avenue North, Montreal, Quebec, Canada; Myron L. Fuller, 157 Spring Street, Brockton, Mass.; Minor S. Jameson, Engineer Examiner Bureau of Finance, Interstate Commerce Commission, Washington, D. C.; Joseph H. Knight, 68 Devonshire Street, Boston, Mass.; Eduardo E. Saldana P. O. Box 906, San Juan, Porto Rico; Charles M. Stamp, Mt. Vernon Foundry and Engineering Company, Mt. Vernon, Ohio; Julian E. Woodwell, 501 5th Avenue, New York, N. Y.

1897

JOHN A. COLLINS, JR., *Secretary*, 67 Thorndyke Street, Lawrence, Mass.

The engagement of Capt. Sheldon L. Howard, IX, to Miss Helen C. Roberts of Los Angeles, Calif., has been announced. Captain Howard is Chief of the Division of Vital Statistics of the State Department of Public Health of Illinois, and is stationed in Springfield. Miss Roberts was for several years an investigator in the service of the Federal Government.

1899

W. MALCOLM CORSE, *Secretary*, 603 Elm Street, Westfield, N. J.

The vote raising the dues from $1.00 to $2.00 was practically unanimous, only four voting against it. The financial report is as follows: Collected in dues from January 1 to October 1, 1920, one hundred dollars. Expenses (printing and postage only) ninety-six dollars and ten cents; leaving a balance in the treasury on October 1, of one hundred and forty dollars.

It is the aim of the secretary to write more personal letters during the coming year and it is hoped that more men will write in with information that can be used in the Class notes of the REVIEW.

E. H. Hammond is now with Childs & Company of Brooklyn, New York, as sales agent. Hammond is living for the present at the Technology Club in New York. — R. P. Anderson of Stamford, Conn., writes as follows: "Since seeing you at Lake Placid last September, our office force, The Yale & Towne Manufacturing Company, has been

removed from New York to Stamford, where the writer has been located since the end of January. From the time of our removal in January up to July 16, I was commuting between Brooklyn and Stamford, but on the latter date moved to Springdale, a village in the township of Stamford, which makes it much more convenient in getting to and from the office than it did when I was residing in Brooklyn. Another event that has occurred since last I saw you was my appointment as assistant manager of the chain block department, which appointment took place last December."

Lawrie H. Turner writes from Buenos Aires, Argentina, that he is there on business for the Foster-McClellan Company, with whom he has been connected for a number of years, and this is his second trip to Argentina. Turner has been connected with the pharmaceutical business almost the entire time since he left the Institute. — H. H. Starr writes as follows: "I am still in the erection department, with the American Bridge Company, in the East (for twenty years). Have had a little to do with the erection of several rather important bridges and lots of little ones and some buildings. The work is extremely interesting and ofttimes requires much planning and scheming." — Clancey M. Lewis was the unanimous choice of the trustees of the China Club of Seattle for president at a meeting of the board held Tuesday, October 12. Lewis is also secretary of the Washington State Manufacturers Association in Seattle and is on the Advisory Committee for the United States of the World Metric Standardization Council.

Warren M. Archibald writes from Athens, Greece, that he has been working there on a report on water and sewerage system for the City of Athens. His work was completed in September and Archibald is due back in New York in October.

There were three M. I. T. men on the job, which consisted of locating two hundred miles of acqueduct through the mountains. Archibald writes that the city needed it, as they now only turn on the water for a few hours per day and use the old Hadrain Aqueduct built in the second century.

The '99 men in the vicinity of New York and Philadelphia arranged an outing at the Shackamazon Country Club, Westfield, New Jersey, for Tuesday, September 28. Those present were: Mr. and Mrs. N. P. Rood, Mr. and Mrs. R. P. Anderson, Mr. and Mrs. F. E. Hermans, Mr. and Mrs. F. C. Waddell, Mr. and Mrs. C. B. Cluff and son Daniel, Mr. and Mrs. W. M. Corse and daughter Margaret, Mr. E. H. Hammond.

The day was somewhat rainy but not sufficiently so to prevent twenty-seven holes of golf being played by some of the party. Prizes were awarded in the shape of Monel Metal golf heads for the winners.

Those who were present at the outing had such an enjoyable time the secretary has already had requests for another. It is hoped that those in the vicinity of New York and Philadelphia will respond in larger numbers next time.

1900

INGERSOLL BOWDITCH, *Secretary*, 111 Devonshire Street, Boston, Mass.

About the middle of October, Bowditch had a very pleasant call from Keith, Course VI, who had not been in Boston for any length of time since he graduated. He has been doing electrical engineering in the West for several years and was in Washington during the war. He has had some interesting experiences and talked of some of them. Bowditch hopes that other members of the Class will drop into his office when they come to Boston.

George Russell has been spending most of the summer investigating the failure of the molasses tank in Boston. A trip to Porto Rico was included in his investigations. He is convinced that the tank was wrecked by dynamite and not by being overloaded. Professor Swain has also been interested in this case, which is now before an auditor, but no decision has yet been reached.

Dick Wastcoat turned out his company of the State Guard in honor of the Governor at the Brockton Fair, which was a great success. Of course it had to be a success, since Dick had something to do with it.

Robert Frazer, Jr., of Philadelphia, now at the American consulate in Kobe, Japan, and who has just been ordered to Washington to assume duties as consul-general at large, has had a successfully varied career in the service. He was educated at the Franklin

School, Germantown, later in Dresden, Saxony, then at the Protestant Episcopal Academy in Philadelphia and eventually was graduated from the Massachusetts Institute of Technology. Mr. Frazer was in the Porto Rican civil service in 1908. Meantime he has been on duty in Spain and Brazil, going to Japan in 1916. Mr. Frazer is forty-one years old.

Leonard's work on the plant of the Beacon Oil Company at Everett, Massachusetts, is nearly completed and in August the first refining of oil was completed. The plant was so well planned that vessels can unload the crude oil and take on refined oil in much less time than at any other plant. Vessels can also take on fuel oil much faster than at other plants. It is hoped that Leonard will find this venture a great success.

Through the kindness of Professor Charles E. Locke and the Alumni Association, the secretary was informed of the death of Howard C. Plummer which took place at Niles, California, on July 16, 1920.

The following is taken from a letter written by Professor Locke and from the *Milton Record*, dated July 24, 1920, sent to the Alumni Association by Howard T. Chandler, '01.

He was born on Maple Street, Milton, January 6, 1879, attended the Milton Grammar and High Schools and in 1900 was graduated from the Massachusetts Institute of Technology as a mining engineer. About twelve years ago Mr. Plummer married Miss Caroline Clark, daughter of the late Thomas Clark, who was formerly gardener on the estate of the late J. Henry Brooks on Adams Street, Milton. Mr. Plummer was prominent in Masonry, having attained the thirty-second degree, and he had a very large circle of friends. He is survived by his wife, a son and a daughter in Niles, by his father and brother, Chester G. Plummer in Milton and by another brother, Raymond P. Plummer, formerly lieutenant in the French Army, now residing in California.

After graduation he served as assistant in the mining department at Technology for a year or two and then went west to Placerville, Calif., where he became associated in mining with Mr. Clark, who afterward became his father-in-law. When mining in this district became less active he moved to Niles, Calif., where he formed a sand and rock-dredging corporation for the purpose of securing sand and rock from the bed of the river and supplying sand and crushed rock to San Francisco and elsewhere. He was practically the company and under his direction it became a successful enterprise.

He was apparently a strong man and enjoyed good health up to last February, when he had influenza from which he did not recover. Since May he was very poorly and was confined to his bed for six weeks prior to his death. The best medical attention in the hospital together with consultations and X-rays indicated that he had Addison's disease. The germ had probably been in his system for several years, lying dormant, but the influenza brought on a tubercular condition which did not yield to treatment.

Plummer was a fellow of fine personality, sunny disposition and very strong in his friendships. He made many friends both in the East and West and they all mourn his death while still in his prime.

1901

HOWARD T. CHANDLER, *Secretary*, Hinckley Road, Milton, Mass.

'01 men all over the world sit up and take notice! You Sexton in Halifax; you Bigelow in Honolulu; and Johnson in Hilo, Hawaii; you Madero and Gonzalez in Mexico; you Hyde and Maxson in Canada; you Asano and Enouye in Japan; you Claflin in Sakchi, India; you F. G. Clapp whose usual address is "Somewhere on this globe," and each and every '01 man wherever you may be, sit up and take notice that next year will be our twentieth anniversary. We *hope* every member will attend the celebration, we *expect* a large percentage, including many of the celebrities. The secretary cannot offer a cash prize for the best suggestion as to how to celebrate, but he will guarantee to give a present of some kind to the fortunate contestant, provided he appears in person at the reunion to claim it. So let your suggestions come along and begin making your plans to travel Techward about next June.

W. Fred Davidson's address is now 900 South 58th Street, Philadelphia, Pa. He is appraisal engineer for the United States Shipping Board, Emergency Fleet Corporation, with headquarters in Philadelphia, but taking care of work in the territory bounded by Cleveland, Chicago, Cincinnati and Baltimore. His work covers the inspection and

appraisal of all kinds of materials and equipment for ships, as well as plants and manufacturing equipment installed to produce parts or machinery for ships or shipyards.

When this country entered the war Davidson was plant engineer for a firm in St. Louis, casting ingots for 8″ shells and doing railroad work. He says, "As one of our men remarked on the phone one day, we are making these shells for Germany. We ship them to England and they forward them." It is very evident from the results obtained that Davidson did a good job upon them and that they were all delivered in good condition. In January, 1918, he went to Hog Island in company with thousands of others and was appointed shops engineer, trying to locate and assemble the various tools and machines and to see that they were installed properly and broken in for hard work, and in June took charge of the plate and angle shop as superintendent. The work of this shop was to produce various parts of ships, particularly parts too cumbersome or too complicated to be sent out to structural shops to be fabricated.

Arthur G. Hayden's present address is 125 Midland Avenue, Bronxville, New York, he having been, since October, 1919, with the Bronx River Parkway Commission, in charge of the design of structures for the new parkway from New York City to Valhalla, New York. Previous to coming with the commission, Hayden was for thirteen years designing engineer of structures on the New York State Barge Canal and located in Albany. He writes that he thinks it greatly to be regretted that in the old days the students at Technology did not have such opportunities as dormitories afford for becoming better acquainted, and that for the lack of such, circles of acquaintances were so much circumscribed. The secretary thinks he is safe in saying that, owing to the splendid donations made in the last few years by men interested in Technology's welfare, the corporation and the faculty have been able to improve this condition immensely.

Austin T. Hyde has joined the organization of Walter Baker & Co. Ltd., chocolate manufacturers, Dorchester, Mass., and is living at 432 Adams Street, East Milton. — "Matt" Brush was in Boston recently.—"Al" Higgins from out west somewhere was seen in the vicinity during the late summer.

Following is a list of members and former members whose addresses are not in the Class records. Inasmuch as it is highly desirable to reach these people in time for the reunion, the secretary would appreciate it greatly if whoever can supply any of the missing addresses would communicate with him: Isaac D. Bardin, Abraham R. Baldwin, Theodore A. Baldwin, Jr., George G. Barker, Joseph C. Burk, William Collord, Harry P. Connor, Miss Harriet B. Elder, Floyd J. Farrar, Joseph A. Garvin, Percy F. Goodwin, Allen T. Griffin, Lowell T. Hayden, Alexander H. B. Jeffords, Albert N. Klyver, Miss Miriam N. Loomis, William H. V. MacDonald, Mrs. Susa M. Maguire, Miss Alma Mannheimer, Leonora D. L. Martin, William J. Mathews, William A. Miles, Ellen M. O'Connor, Arthur W. Payne, John M. Perkins, Walter D. Pratt, Miss Elizabeth Robins, Charles L. Robinson, William W. Roney, James M. Scott, Miss Katherine B. Shillaber, Clarence B. Stewart, Miss Mary A. Whalen, Leonard A. Wheeler.

Our venerable ex-secretary-treasurer, Robert L. Williams, immediately after turning over his duties to the new secretary, recuperated himself by taking a trip to Europe. How did you work it Bobby? Looks like Ponzied finance, except for the fact that the records you handed the new secretary appear to be in perfect order. But let Bobby tell his own story:

"Dear Chandler: Since last I saw you and turned over to you the records, money and work of secretary for the illustrious Class of '01, I have had a most interesting trip to Europe. Needless to say, freed from the tremendous responsibility of Class secretary which I had carried for twelve years, I felt like a new man and was ready for anything.

I sailed from New York on the "Olympic," which is a wonderful ship nearly a thousand feet long and is so steady that one can scarcely realize that she is making a speed of twenty-one knots. We crossed the ocean, three thousand miles in six days, stopping at Cherbourg a few hours to land passengers for France, and then proceeding to Southampton, England.

There I had my first experience on an English train. As you doubtless know the cars are not at all like ours but are divided into compartments with doors opening out of the car from each compartment. The locomotives are also quite different from ours, having their cylinders underneath the boiler instead of on the outside. This gives them a much neater appearance. They are much smaller but they can go like the mischief, making sixty miles an hour.

Arriving at London the first thing that amused me was the baggage system. You got

out of your car, walked down the station platform and were told that you would find your baggage on another platform at the other end of the station. Rushing down there you found the whole train full of people lined up against a gate. There you had to stand a half hour, being pushed and squeezed by the impatient crowd, while the baggage men unloaded all the baggage on the platform. Then the gate was opened and there was a mad dash. Each man picked out his own bags and trunks and had a porter take them to his taxi. There was absolutely no checking system and the honesty of the passengers was relied upon. Strange enough, very seldom is anything lost.

I spent a month in England, most of the time in London. Although my trip was a business one I had more or less time for sight-seeing and visited many historic spots. I thought London was a beautiful city, with its numerous public buildings, monuments and parks. Most of the buildings are constructed of a white stone which has turned black from the smoke of the city. The weather has washed off the exposed parts, which gives them a very peculiar effect, making them have a frosted appearance.

The only evidence that I saw of the world war was where a zeppelin had dropped a bomb and knocked holes in a hospital wall. I did not see a London fog and was told that they occurred only in the winter. The climate I found very disagreeable, the temperature being about 66° F. most of the time, the sky overcast and frequent showers.

Leaving London I crossed the North Sea to the Hook of Holland and from there went by train to Amsterdam, which is a very interesting city with its canals and wonderfully clean streets. I had the scare of my life here, riding from the station to the hotel, in a taxi with a Dutch driver. The streets were narrow and well filled with traffic, but our crazy driver drove about twenty-five miles an hour, dodging in and out, with his horn going all the time. We tried to have him slow down but could not make him understand. Later we learned that the reason he went so fast was because he knew we were Americans and thought that Americans liked to ride that way.

At Amsterdam I took the train for Germany and after riding a few hours reached the Dutch frontier. Here everybody had to get out of the train with all his baggage and have it examined by the Dutch custom officials. Also our passports had to be inspected. This took about an hour. We then boarded the train, rode fifteen minutes and reached the German frontier where the performance had to be gone all over again only with greater thoroughness by the German inspectors. Here we not only had our baggage examined but also our pockets and our money counted.

A traveler is not allowed to take out of Germany more than 1000 marks. When you enter the country, however, if you have more than this amount you are given a receipt for it by the custom officer and can bring with you the same amount when you return.

The German trains were not in as good condition as the English ones, the Allies having taken all their best cars and engines. Nevertheless the Germans had them in good running order and my train was always on time.

I was in Germany a month, the greater part of the time at Bremen, which is in the northern part of the country on the Weser River about forty miles from the North Sea. Bremen is a fine city of about 160,000 inhabitants and has many beautiful old buildings. I found the factories running and the people busy. I saw no one who looked as if he had not enough to eat. The price of food, however, was very high and on that account I was informed the people lived very poorly. At my hotel I could get anything in the way of food. The prices in Germany are ten times what they were before the war, but with the mark worth only two cents in our money, an American can live as cheap or cheaper in Germany than at home.

They have their labor troubles and strikes and also the red flag appears at the head of processions in the streets, but I saw no disturbance, although the police are out in greater numbers when a parade is taking place.

The Conservatives are in the majority and as long as the people can be employed and obtain food there is little danger of Germany joining the Bolsheviks. The laborers are getting eight or nine times the pay they had before the war, but it is the salaried men and people with fixed incomes who are suffering the most.

They have moving picture shows with their own plays and actors. Curiously enough the plays almost always end badly, the hero or heroine being killed or meeting with some terrible catastrophe. I suppose it reflects the feeling of the people.

The money is practically all paper, there being no gold or silver coins. Once in a while

you will get some iron or aluminum change. One feels like a millionaire walking around with big rolls of paper money, for it takes a lot to buy anything.

There is a very good opera company at Bremen and the opera house is owned by the city. You could get one of the best seats in the house for thirty marks or sixty cents in United States money. Some cheaper than New York opera!

I returned home via England, sailing from Southampton on the Aquitania, and getting away just in time to escape the big coal strike. I was mighty glad to get home and the old U. S. A. is good enough for me."

"After two years as principal engineer of the construction division of the army, my humble contribution to the world war," writes Allen B. McDaniel, now development expert in construction with the Educational and Recreation Branch of the War Plans Division of the War Department at Camp Grant, Illinois, Building 517S, Educational and Recreation Office, he took the position named and is doing preliminary work for the establishment of education in the permanent army. The whole theory of the work is learning by doing, a theory which gives great promise of becoming very successful. At the present time training in general and vocational education at a special service school is being given to several hundred teachers from all over the country as well as some coming from such distant points as Hawaii, Panama and the Philippine Islands.

Charles F. Willard of Wooster & Willard, now located at 1115 Main Street, Bridgeport, Conn., is engaged in taking out, *for others* (Tech men not barred) the best patents obtainable at Washington.

Changes in address, as follows, have been received: Robert White, Jr., now at 123 Washington Street, Grove Hall 21, Mass. Robert ought to be able to remember the number of his house fairly easy. Wonder if he picked it out for that reason! Lieut. Commander Ralph Whitman has returned from Santo Domingo and is located at present at the U. S. Naval Ordnance Plant, South Charleston, West Virginia.

All '01 men are expected to change their addresses for a few days about June, 1921, to "Care of '01 — 20th Anniversary Jollification Committee."

1902

FREDERICK H. HUNTER, *Secretary*, Box 11, West Roxbury, Mass.

BURTON G. PHILBRICK, *Assistant Secretary*, 585 Boylston Street, Boston, Mass.

(It is the fault of the secretary that the notes relating to the reunion did not appear in the last issue of the REVIEW. In trying to get pictures of the outing he lost count of the brief time after the event before the forms closed.)

'02 started its celebration for the Tech reunion on Saturday morning, June 19, nine men rendezvousing at the Engineers' Club for an auto run to Marion, on Buzzards Bay.

Walker took "Dunc" Franklin, who had come over from New York, and Lewis Moore in his Pierce-Arrow and made a stop in Brookline to pick up Bob Edwards at his home. Sherman took Frank Montgomery, who had motored over from New York, and Charlie Boardman in his car, and Collier transported the secretary and assistant secretary. On arriving at the Sippican, Marion, in time for lunch, Jack Fruit and Fred Mathesius were found, they having come from New York via the New Bedford boat and trolley. Early in the afternoon Everett Upham motored over from Onset, where he was staying with his family, to say "howdy" for a few minutes. Billiards and poker and other indoor sports started the afternoon which was threatening, but later the atmosphere cleared and a ball game was held on the grounds of Tabor Academy, resulting in a victory of 15-5 for the New York team, captained by Mathesius, who played second base, with Montgomery as catcher, Luke Collier (borrowed from Boston) as pitcher, Franklin, first base, and Fruit third. The losing team had Sherman and Hunter for battery, alternating positions with equal success, and Boardman, Philbrick and Moore on bases. The heavy hitting of Montgomery and the good fielding of Collier and Franklin were the features of the game. Returning to the hotel, Charlie Gardner was on hand to welcome the players, he having motored across from Plymouth to greet his classmates. Bassett arrived from Worcester just in time for dinner, and Jimmie Smith and Robbie, who had taken in an Underwriters'

Bureau Outing at Lynnfield, earlier in the day, arrived in the evening in time to sit in for the last few hands.

Next morning a few enterprising water birds got in a swim before breakfast, but the cool temperature kept the attendance low. After breakfast official pictures were taken and then the party divided into two groups, Collier, Smith, Sherman and Edwards playing golf (they refused to report the score!) with Fruit and Montgomery as gallery, while Philbrick, Boardman, Moore, Franklin, Mathesius, Bassett and Hunter went sailing in Captain Perry's catboat, four of the party taking an intentional plunge overboard before the return trip was made. The party returned to Boston by auto in the afternoon. Only a short time after their departure, Ritchie sailed into the harbor, he having started from Cohasset, Mass., in his boat the day before, expecting to join the party, but was delayed by bad weather and heavy winds in the canal.

The Class dinner was held Monday evening with the following twenty-six classmates present: Bassett, Boardman, Bourneuf, Collier, Dunc Franklin, Fruit, Hall, Hunter, Kellogg, Lockett, Mathesius, Charlie Mixter, Jason Mixter, Moore, Montgomery, Arthur Nelson, Pendergast, Burt Philbrick, Ritchie, Robinson, Arthur Sawyer, Adrian Sawyer, Sears, Thurston, Walker and Williams. A brief business session was held at which the present officers were re-elected, and resolutions passed thanking Geromanos for his splendid work as Class chairman on the fund. Cards received from Gere from Japan and Korea were exhibited. The members then gathered round the piano with Thurston invoking music and a good old "sing-song" was indulged in.

The Class dinner had the largest group of classmates together at any one time during the reunion. Patch and Upham who were not at the Class dinner, were among those attending the general banquet the following evening. Mud Comins motored into Boston late Tuesday evening, having missed most of the reunion, but in time to take in the Plymouth trip. He had come all the way from St. Francois, Mo., by auto, and made the return trip over the road after a brief visit on Cape Cod. Mesdames Patch, Arthur Sawyer and Hunter accompanied their husbands on the Plymouth trip. We found Charlie Gardner very busy as head of the local reception committee, made up of Tech men from Plymouth and vicinity, who welcomed the boatload on its arrival at Plymouth and saw that the brief time there was put to the best advantage visiting the historic places.

Harry B. Pond is in Rio de Janeiro, Brazil, representing the U. S. Steel Products Co., his address being, Rua Candelaria 42. — Matt Brodie writes from Tokio, Japan, where he is representing the SullivanMachinery Company: "Last year I spent about nine months away from Japan visiting China, Philippines, Netherland East Indies, Malay States and Straits Settlements, French Indo-China, Burma, India. Got home to St. Paul just in time for Christmas last winter, and was in Boston for three hours early in January, but my trip was a hurry-up one and I had but little time for myself. I have charge of my company's interests in all of Asia, excepting Siberia, and it is somewhat scattered and difficult to keep up to date on all parts of it." He advises that the best address to reach him is care American Consulate, Yokohama, Japan. — Paul Hansen has become a member of the firm of Pearse, Greeley & Hansen, hydraulic and sanitary engineers, 39 West Adams Street, Chicago. — We have just learned that Bayard Mendenhall has been for some time manager of the White Motors Co., 36-38 South West Temple Street, Salt Lake City. They are distributors for White cars and trucks for the State of Utah. — Walter Farmer's address is 2206 Gilpin Avenue, Wilmington, Delaware. — Roger Greeley has filed a statement that Bob Edwards is not the only classmate who has recently become the father of twins, daughters, Anne Vaughan and Ellen Houghton having arrived at the Greeley home on April 17, 1919. This brings the Greeley family up to five children, giving them a high standing in the Class.

Richard Balcomb Philbrick arrived at the home of the assistant secretary, in Salem, on April 15, last, he is being brought up on carefully tested milk and is doing finely. — We have learned that Norman Borden is with the Maplewood Lumber Co., Woodstock, Vermont. — Dana Fisher is with the V. V. Fittings Co., 308 South Canal Street, Chicago, which accounts for the absence of his cheerful face at the June reunion. Dana is not in the habit of missing any affair of this kind. — Walton Sears has resigned from the construction work in the Navy Department, and is now plant engineer for the Atwood & McManus Box Co. of Cambridge, Mass., his residence address being 160 Pleasant Street, Arlington. The last time we saw him he was very busy completing the equipment of the company's plant in the Mt. Auburn section of Cambridge. This plant was destroyed by fire and has

'02 AT MARION, JUNE, 1920

Standing, left to right: Moore, Robinson, Edwards, Smith, Bassett, Boardman, Montgomery, Hunter
Seated, left to right: Fruit, Sherman, Collier, Franklin, Walker, Philbrick

been rebuilt and enlarged with the most modern equipment. — Clyde Fruit is in the New York office of the Shawinigan Products Corporation. They sell carbide for acetylene lights and a lot of other things that we know little about since we have forgotten all the chemistry that Tommy Pope taught us. — Archie Gardner is in Toledo, Ohio, with A. Bentley & Co., the same firm he was located with in Jacksonville, Florida, where they were building concrete ships. — Harry Hooker is with Blodgett, Hart & Co., 68 Devonshire Street, Boston. — Robert Pope qualifies as our class "progressive," having been one of the executive committee of the "48" Movement. — George T. Seabury Inc., has taken a contract to rebuild a considerable stretch of Blue Hill Avenue, Canton, Mass. From having traveled this road on the way to Marion in June, we can testify that rebuilding is badly needed. — Robinson has been appointed (unofficially) inspector to represent the Class interests. — Charlie Shedd has resumed his practice of structural engineering and is located at 45 Bromfield Street, Boston, His name appears on the framing plans of several of the most new important buildings in the city, among them being a large store building on the corner of Washington Street and Temple Place. He was so busy we weren't able to coax him away for any of the reunion doings.

Charlie Boardman has moved from Forest Hills, his new address being 314 Eliott Street, Milton, Mass. When we last saw him he was with the Shipping Board, but expected to complete his work for them ere long. — Walter Teague is with the General Fire Extinguisher Co., Providence. Since the word from Japan and Korea already mentioned as coming from Geromanos, he has reported from Pekin, Hong-Kong, Straits Settlements, and under date of August 20, Tosari, Java, which he tells us is 6000 feet above the sea level and cool and delightful, with the most beautiful roses he had ever seen.—Pendergast has recently moved to 3926 McKinley Street N. W., Washington, D. C.

1905

GROSVENOR D'W. MARCY, *Secretary*, 246 Summer Street, Boston, Mass.

CHARLES W. HAWKES, *Assistant Secretary*, 246 Summer Street, Boston, Mass.

The following, taken from the *Electrical Revue* of July 17, announces another high office filled by one of our classmates:

O. C. MERRILL MADE SECRETARY OF POWER COMMISSION

Oscar C. Merrill, now chief engineer of the United States Forest Service, has been appointed executive secretary of the newly created Federal Power Commission, the appointment being made by Secretary of War Newton D. Baker, who is chairman of the commission. On taking office Mr. Merrill made arrangements for an advisory committee to draft regulations under the act, and on this committee the War Department named Gen. E. H. Crowder, the Interior Department selected Herman Stabler, while the Agricultural Department designated Mr. Merrill to look after its interests.

Mr. Merrill was born near Augusta, Me., in 1874 and graduated from Bates College in 1899 and from the Massachusetts Institute of Technology in 1905. Prior to beginning work with the Forestry Service in 1909, Mr. Merrill had made a study of water-power conditions in various parts of the country and his first work for the Forestry Service was a special study of water powers in California. In 1910 he was placed in charge of all water powers coming under the jurisdiction of the Forestry Service and in 1914 became chief engineer of the body, with headquarters in Washington.

The following postcard was received in August from W. S. Richmond:

"Had letter from Hallet Robbins not long ago. He is at Fierro, New Mexico, engaged in research work on a metallurgical invention of his. Has already produced one such invention of value. As you know, he was Assistant Military Attaché at Peking during the war. A recent letter from Louis Robbe discloses his whereabouts still at Gilboa, N. Y., where he is engineer for the New York Board of Water Supply on the Gilboa Dam of the Schoharie development. Last spring Louis sent me a letter from Gabriel to Hallet. Gabriel was then on a commission investigating the resources and commercial condition of Poland. His work had particularly to do with the railroads and the production of coal. In May I left Larner-Johnson Co., of Philadelphia, to become principal assistant

engineer of St. Lawrence waterway and power investigations. Soon gave up this job because of political interferences. Now engaged in work along water-power lines.

An item that was overlooked from the last REVIEW, in the confusion of getting the reunion news, is the following from Bill Keen:

"Am just in the midst of moving from Cleveland to Baltimore. Have just accepted position as manager of Tool Steels at Hess Steel Corporation, Baltimore, Md. Melting furnaces are all electric. Haven't seen any '05 men for an age. Best regards to yourself and other '05ites in Boston."

Doc Lewis made a short trip to England during the summer in the interest of the Lewis Recovery Corporation to advise with the Dunlop Rubber Co., Ltd., who are putting in a plant for solvent recovery under the Lewis patents.

Hub Kenway recently returned from a trip to England, France and Switzerland, during which he visited the British Shoe and Leather Fair and investigated shoe machinery conditions on the Continent.

Paul J. Ralph is now Philadelphia Sales Representative of the Morris Machine Works of Baldwinsville, N. Y., manufacturers of centrifugal pumps. Ralph's business address is 1630 Real Estate Trust Building, Philadelphia, and his house address is 1327 Spruce Street, Philadelphia.

The following changes of address have been received:

Herbert S. Bailey, Head Laboratory S C O Company, Savannah, Ga.; Henry H. W. Keith, 62 Dwight Street, Brookline, Mass.; Mr. Oscar C. Merrill, Federal Power Commission, Interior Department Building, Washington, D. C.; Mr. James H. Tebbets, Bethlehem Shipbuilding Corp., Ltd., Plant Engineering Dept., South Bethlehem, Pa.; James I. Banash, 3642 Jasper Place, Chicago, Ill.; Charles K. H. Bunting, care of Walter B. Snow, 60 High Street, Boston, Mass.; Luther E. Gilmore, 1050 Foster Avenue, Chicago, Ill.; Thomas M. Gunn, care of A. S. M. E., 29 West 39th Street, New York, N. Y.; Alfred H. Kelling, 800 North Clark Street, Chicago, Ill.; Kilborn Whitman, Jr., 149 Sigourney Street, Hartford, Conn.; Leslie Clough, 23 Curtis Street, West Somerville, Mass.; Harold G. Crane, 322 Front Street, Adrian, Mich.; Horace J. Macintire, Mechanical Engineering Dept., University of Illinois, Urbana, Ill.

1906

J. W. KIDDER, *Secretary*, 50 Oliver Street, Boston, Mass.

E. B. ROWE, *Assistant Secretary*, 92 State Street, Boston, Mass.

Notes for the REVIEW are not very plentiful this month. The following items are the only ones which have come to the secretary's attention:

From the *Chautauquan*, New York daily of August 10, 1920:

"Dr. John F. Norton, V, who gave an address yesterday at the Hall of Philosophy on 'The Modern Aspects of Ventilation,' is at the present time Assistant Professor of Bacteriology in the University of Chicago. Dr. Norton is a graduate of the Massachusetts Institute of Technology and also of the University of Chicago, receiving the degree of Ph.D. from the latter. Following his graduation from these schools he was assistant professor of Sanitary Chemistry in Massachusetts Institute of Technology, later accepting a position with the University of Chicago, which he now holds. This is not the first time that Dr. Norton has visited Chautauqua. He first came to Chautauqua over twenty years ago as a boy and has returned many times since."

Advance notice has been received of a book entitled "School Architecture," by John J. Donovan and Collaborators. From the notice which is given below it is evident that Donovan has completed a very useful and timely volume.

"School Architecture," by John J. Donovan, B.S., Architect, A.I.A., and Collaborators. A comprehensive treatise on the organization and planning of school buildings, written not alone for architects, but also for boards of education, teachers, and every one interested in the development of the modern school. Fully illustrated with seven hundred and nine photographs of exteriors and plans; and detailed drawings of all school departments, including scale and full size details of rooms and equipment. Two hundred

and fifteen thousand words in text. Collaborators, who co-operated fully with the author, are leaders in the teaching profession from various sections of the country.

The secretary is sending these few notes from New York where he is attending the Transmission School given by the Development and Research Department and the Engineering Department of the American Telephone and Telegraph Co. The object of the school is to instruct men from the operating companies in regard to the most recent developments in telephone transmission. In contemplating the stay in New York the secretary looked forward to looking up some of the many 1906 men in the big city. So far the course has taken so much time that there has been no time for visiting. The only man seen to date is O. B. Blackwell. The men of his department conducted the first two weeks of the school, and he gave a very interesting talk one morning upon the course. Two of the three months of the course will come the first of 1921. It is hoped then that opportunity may be found to see some of the '06 men in New York.

1907

BRYANT NICHOLS, *Secretary*, 2 Rowe Street, Auburndale, Mass.

HAROLD S. WONSON, *Assistant Secretary*, Care of W. H. McElwain Co., Manchester, N. H.

James M. Barker has shifted his South American headquarters, still remaining with The First National Bank of Boston, but being located at Bartolme Mitre 501, Buenos Aires, Argentine. — John G. Barry and Miss Alice Marjorie Pierce were married on June 19, 1920. — Paul A. Draper is a member of the wool firm of Crimmins & Pierce, 281 Summer Street, Boston. He lives in Canton, Mass. — Hudson B. Hastings is now in Walpole, N. H. — Edward G. Lee is now located at 11 Lisbon Street, Lewiston, Maine. — George D. Luther has left Denver and is to be found at 811 White Building, Seattle, Wash. — William H. Martin is with the Foundation Company at 233 Broadway, New York City. — Donald G. Robbins is now associated with Nat Middleton, these two '07 men now running the engineering department of the instrument house of Hornblower & Weeks, 60 Congress Street, Boston, Mass. — A brief letter dated October 12, 1920, received from Bob Thayer states that affairs are well with him. He is living in a "nice little English cottage in one of the suburbs of London." Bob is the European representative of the Simmons-Boardman Publishing Co., 34 Victoria Street, London, S. W. I., England.

1908

RUDOLPH B. WEILER, *Secretary*, Care The Sharples Separator Company, West Chester, Pa.

Tim Collins has left Boston to go to Cleveland, Ohio, as one of the resident managers of Imbrie & Co., Swetland Building, which has made it necessary for him to discontinue the efficient work he has handled for the Class for so many years in Boston. His successor will be elected at the October Bi-monthly Meeting of which Linc Mayo will have charge.

The following sad letter was received from A. B. Babcock, '08, under date of July 22: "I wish to notify you of the death of Mr. Henry G. Nicholas, a member of our Class, in San Francisco, on the ninth of this month. Mr. Nicholas returned from the Hawaiian Islands about two weeks previous, and was transferred from the steamer directly to the hospital, where he died. He and his family were due to return to their home in Australia the day following. He leaves a wife and a little girl about twelve years of age, who will return shortly to Australia."

Lawrence Howe Allen was married on Saturday, October 16, to Miss Ethel Mell at Philadelphia.

Howard E. Batsford writes under date of September 22: "Again I must ask you to change my address, this time from the above to 319 North 5th Street, Steubenville, Ohio, care George A. Sires. Next Saturday I leave the employ of the Solvay Process Company to become the technical director of the American Electric Graphite Manufacturing Com-

pany, a new company incorporated under the laws of Ohio and to be built on the site of the American Sewer Pipe Company, at Toronto, Ohio, ten miles north of Steubenville. There is nothing at present on the spot except a pile of bricks, four or five houses, and an old boiler house and some soft coal mines unworked since 1909. We therefore have a good job before us to get into working quarters before the cold weather sets in, but of course it is not so severe in that country as up north here. The plant will be situated on the Ohio River, with the Pennsylvania Railroad running through the property. It is forty miles to Pittsburgh, thirty miles to Wheeling, W. Va., and we have easy shipping facilities to all the important cities in the coal and iron districts. We will make cement clinker, mine coal, make electrical graphite, motor fuel, ammonium sulphate and electric furnace products of varied description, the last named being my specialty for the past twelve years. The directorate will consist of eight men, all except the president being young and specialists in their line. There is every chance for a success and we're going after it. Please change the address in your mailing files to the above. By the way, I don't think you have the record of my son, John Robert, born October 28, and now nearly a year old."

From *The Christian Science Monitor* of August 24, we note the following: Honolulu, Hawaii. — Dr. Jesse K. Flanders will fill the new chair of education in the college of arts and sciences , University of Hawaii. He is a graduate of Bates College, Maine, did special work at the Massachusetts Institute of Technology and graduate work in education at Stanford University and the University of California.

1910

DUDLEY CLAPP, *Secretary*, Gloucester, Mass.

Your secretary slipped up on the July issue of the REVIEW. What with all the troubles, joys and general work connected with getting married, buying, re-finishing and furnishing a house and trying to run a Ten reunion the last days in June, the write-up for the REVIEW went by the board. He had little time for the reunion as a matter of fact, and if it hadn't been for Herb Cleverdon there wouldn't have been any such animal. Again Herb has earned the thanks of 1910.

At any rate we had the Straitsmouth Inn at Rockport for June 18, 19 and 20 and over twenty of us were there in all. These included Schleicher, Carl Sittinger, Bob Burnett and wife, Herb Cleverdon, wife and daughter, Phil Taylor, Peabody, Roper, Berg Reynolds, Jacoby with his wife and son and wife's mother, Jim Cox, Hal Manson, Bob Dillon, Whitney, Harry Hale and your humble servant with his wife. We had four machines belonging to the crowd and autoing, golf, walking, card playing and a few foolish games such as leapfrog and duck-on-the-rock passed the time away pleasantly enough.

The dinner Monday night at the City Club was a great success with nearly fifty present. Souvenir mirrors sent by Beebe of Ipswich, South Dakota, were given out.

A letter from Schlitz French states that his fourth girl arrived in May, and he claims the record for consistency. He undoubtedly has it. E. K. Jenckes told me last month when I saw him at the Chemical Show in New York that he had to announce the arrival of another boy. He promised to write me but has not yet done so. Nat Seeley announces the arrival of his "White Hope" on July 12, 1920, Franklin Perry Seeley, weight 8.5 pounds.

The *Transcript* has the following to say about Hale Sutherland:

"Ipswich was the scene of an outdoor wedding Tuesday afternoon, when Miss Margaret Townsend became the wife of Professor Hale Sutherland, an assistant in the structural engineering department at the Institute of Technology. Miss Townsend is the daughter of Dr. Charles W. Townsend, whose Boston home is at 98 Pinckney Street. Professor Sutherland is the son of Ira Sutherland and a graduate of Harvard, Class of '06, and of Technology.

The ceremony took place at Merula Farm, the country home of the bride's father, and was performed by Rev. Howard N. Brown, D. D., minister of King's Chapel, assisted by Rev. Charles E. Park, minister of the First Church in Boston. Professor Sutherland and his bride will make their home at 12 Mason Street, Cambridge."

The following comes from Stuart Henderson:

"I have little 1910 news to give you. I have had several pleasant times with Lovejoy and have seen Humphrey, Course VI, several times. I am still with the Westinghouse Electric and, while Pittsburgh atmosphere is not the most desirable in the land, I can't divorce myself from the work."

Carroll Benton writes thusly:

"Perhaps you would like to hear a word or two as to myself. I went into service in September, 1917, going across in January, 1918. Spent some fourteen months on the other side in sound-ranging work, i.e., locating enemy guns by sound. It was mighty interesting work and, I believe, proved to be quite successful. It was something new in the American Army, adopted largely from the French and British, chiefly the latter, and modified somewhat to suit American ideas. We maintained a school near Langres and an experimental laboratory at Princeton University. American apparatus was being made by the Western Electric Co., but it never reached us at the front. We operated the entire time, chiefly with British apparatus, using American accessories, such as wire, telephone apparatus, Delco electric plant, etc.

I returned with my outfit to this country in March, 1919, and let me assure you I was mighty glad to get back, the latter being a not uncommon feeling, as you are, of course, aware.

After drifting around a bit, among other things assisting the Salvation Army and the Red Cross in their drives, I returned to New York and took a position with the chief statistician of the American Telephone and Telegraph Company, which position I am still holding down.

I am finding it harder every day to stick to an inside job after being outside so long — but suppose I shall have to grin and bear it."

The following letter from H. G. Reynolds was received some time ago but ought to be "live news" just the same:

"Inasmuch as I have gone into a new line of work, thought I would drop you a line as to what my present position is. On the first of January, I went with the Wallace & Tiernan Co., Inc., as superintendent of their factory. Upon coming to the job I found our old friend Bill Orchard, firmly and creditably holding down the position as sales manager for the firm. This is a firm that manufactures apparatus for chlorinating water and sewerage and other apparatus for industrial purposes and is a mighty fine organization.

In the January issue of the TECHNOLOGY REVIEW I find quite a few of the 1910 Class whose addresses are not known. I think possibly I can put you on the track of several of them. If you do not want to handle this will you please pass it on to the Alumni Association.

Malcolm B. Hall: the last I knew he was with the Foxboro Company, Foxboro, Mass. I believe you will be able to reach him there. George E. Miers two years ago was connected with the Boston & Maine Railroad and Winthrop Highlands, Mass. was his address. If you cannot locate him there perhaps the Boston & Maine Railroad might be able to give you his present address. Ernest A. Redman: I have lost all track of him as also seems to be the case with most of his friends. The last I knew he was a lieutenant in the aviation camp at San Antonio, Texas. It is probable that you could get his present address from the War Department. Inasmuch as I have not heard much from him since the war I think it is highly probable that he is still in the service.

I noticed the name of Henry Schumann-Heinck. He is a son of the well-known singer by that name and you might be able to ascertain from some musical agency the permanent address of Madame Schumann-Heinck, and reach him that way.

I also noticed the name of Clifford G. Sherman. At one time Clif Sherman and I were very close friends but I lost track of him as one is apt to do with so many. I would appreciate it, if anybody turns in his address, you would advise me.. His home at the time he attended "Tech" was in Providence and it is possible that the post-office authorities might be able to obtain his present address.

1911

ORVILLE B. DENISON, *Secretary*, 63 Sidney Street, Cambridge 39, Mass.

HERBERT FRYER, *Assistant Secretary*, 2 Commonwealth Avenue, Boston, Mass.

Well, mates, here we are nearly ten years old and the thought uppermost in the minds of all of us should be the best way to celebrate our tenth birthday. Of course we shall have a ten-year book and be prepared to receive a request for personal data ere this year passes into the discard. Please give the matter of how we can best celebrate in June, 1921, a lot of thought, so that you may WRITE TO DENNIE and then perform said capitalized function.

It is the sad duty of your secretary to report one death in the ranks of 1911, Ignacia L. Corcuera, I, who died July eighth. Corcuera specialized at the Institute in the last year of our stay there, but during his short stay was an active member of the Cosmopolitan Club.

From New Westminster, B. C., Mr. and Mrs. James Lord announce the marriage of their daughter, Isabel Mary to Mr. John David MacKenzie on Wednesday, August twenty-fifth. Your classmates wish you and friend wife a happy and prosperous married life, Mac! Through a strange coincidence two junior eleveners, one a lad, the other a lassie, made their appearance on the third day of July. To Mr. and Mrs. Edgar Woodward was born a son, Donald Edgar, who weighed eight pounds. Mr. and Mrs. A. W. Yereance were the same day the proud parents of Jean Greville, who weighed seven pounds. Hearty congratulations to all of you!

H. S. Alexander, II, is now with the Franco-American Manufacturers' Association in Buffalo, N. Y., and writes:

"I plead guilty to long delays in establishing liaison with you and your excellent organization. I have looked into the latest TECHNOLOGY REVIEW to find out the most plausible of the usual excuses given in these characteristically delayed notes and I am impressed with the singular lack of originality in the most of them. This is most disappointing, for I had always felt that the engineering profession, as embodied in our Class, should display quite a bit of inventive genius, and to come to the point, I am not going to make the rest of you jealous by giving too good an excuse, so I will not give any. Well, I got married last April and have not regretted it since. My wife is Mrs. H. S. Alexander. I call her Ruth and you may too, if you will come out and get acquainted. In full sympathy with the general practice, I would be glad to escort any of my classmates who are negotiating matrimony, on their trip to Niagara Falls. Of course they will be coming there."

Glad to hear of your marriage, Harry, and here's looking at you. — "Bill" Buckley, I, wrote in September from San Francisco that he and his family had been out there about six months and expected to be there for at least a year longer. Bill avers that if he had the "necessary wherewithal" he would "come down to the Santa Clara Valley, get a nice prune or peach ranch and live happily to the end." He sends warmest regards to the boys around Boston. — "Jim" Campbell, another Civil, writes that business appears to be slowing up a bit, but that his firm has "enough in the office to round out a darn good year's work." — "Bob" Haslam, X, is now a member of the faculty of dear old M. I. T., being on the chemical staff of professors. We're mighty proud of you, Bob! — Bill Humphreyville, VI, writes from Houston, Texas, that he is "having a warm time in the contracting business having to finish all old work with union labor at an increase of 33⅓ per cent in wages, and there is $49,000 worth to stand yet." — Capt. George (Heine) Kenney, A. S. A., has been with the Heavier-than-Air Detachment at Smithton, Kentucky, but on October first was transferred to the flying field at McAllen, Texas.

One of our classmates, Max Kushlan, VI, wrote to the secretary under date of August 26, as follows:

"You have asked classmates to write, so I am going to take you at your word, and am sending you a bit of publicity from my personal experience as a civil service employee with the City of Chicago, where I was employed from February, 1914, to May, 1920. Until May, 1919, my progress in the Bureau of Engineering, City of Chicago, was steadily upward, beginning with drafting and detailing pump equipment and ending as the engineer in charge of the electrical equipment for the city bridges. But since that time there has been a good deal of politics injected into the activities of our department, and finally the

situation became almost unbearable for those engineers who would not go along with the Thompson-Lundin political machine, which is in control now. I was among those who did not want to sacrifice their honest convictions for the sake of a job and as a result I was suspended in connection with some trumped-up charges against Messrs. Pehlfeldt and Young. For the rest I will refer you to the newspaper clippings and literature of the American Association of Engineers enclosed. As you see, the local engineering society has investigated our case and has given us a clear bill of health. Now we are planning to go to a civil court and sue the political ringleaders who have attempted to ruin our reputations. In the meantime I am employed as the electrical engineer for the Chicago Bascule Bridge Company, where I am getting along very nicely. I am gradually developing as a consulting engineer and hope to attain success, provided our reputation is cleared up. The American Association of Engineers is helping us morally and financially, because they rightly feel that our case is a test case that will determine the safety of the entire profession. Now, Dennie, remember that I claim full innocence of any of the charges made against me and I stand ready for the most rigid investigation by the Massachusetts Institute of Technology, whose opinion I value above all others. I have been true to the great moral teachings of uprightness and true manhood that have been so carefully instilled in us by our Alma Mater, and I hope to prove it conclusively at the trial. Please publish my story among the classmates or other alumni and communicate with me if there are any inquiries in regard to my case. I will appreciate any assistance that you can render to clear up my good name and to help me win the case."

The first of the enclosed clippings tells of Kushlan's suspension by William Burkhardt, acting commissioner of public works, on May 21. Burkhardt said: "Kushlan has been working for the Chicago Bascule Bridge Company on the city's time. He spent a great deal of his time with Hugh Young of that company. He was frequently absent without permission and did not give his best service to the city." To which Kushlan replied: "That's made out of whole cloth. I did a little work for the bridge company, but only evenings on my own time, as every one knows. If there is anything wrong about that, I should like to know it. And as for being inefficient, the civil service commission two weeks ago raised my salary from $225 to $260 a month for efficiency." In the clipping *The Chicago Daily News* said editorially: "With three of the city bridge engineers suspended from their jobs, aldermen are discussing reports that behind the move is a plan of Fred Lundin to have the bridge division abolished and all bridge work turned over to the Strauss Bascule Bridge Company. This plan was in the minds of the Thompson-Lundin leaders, it is said, when the citizens of Chicago were asked on April 13 to approve a bond issue of $9,000,000 for bridge construction. The same reports reaching the ears of members of the city council say Lundin still plans to try to go through with the scheme, despite the rejection of the bond issue." The next clipping tells of the "trial" and subsequent dismissal of the three men and then follow two resolutions adopted by the Chicago Chapter, American Association of Engineers. The first, dated May 7, was an expression of confidence in Messrs. Piehlfeldt and Young and a condemnation of the action of the commissioner of public works in "besmirching the characters of two civil service employees inadvance of preferment of charges and trial thereunder." This was in advance of Kushlan's suspension. Then on August 6, the chapter passed another resolution including Kushlan's name among those suspended and still expressing confidence in all three. Finally comes a copy of a resolution adopted by the entire Association at its 1920 Convention, "that the practice of public officials suspending members of the Association from their positions pending the filing of charges and giving publicity to such action be emphatically condemned." Certainly those of us who knew Max at Tech have every confidence in his integrity and honesty and are pulling hard for his obtaining vindication and any damages which are rightfully his.

The *Electrical World* of July 17 under its "Men of Industry" weekly column paid the following tribute to our own "Dick" Ranger, VIII:

"Capt. Richard H. Ranger, after three years of service with the army, has resigned from the Signal Corps to take up work with the Radio Corporation of America under E. F. R. Alexanderson, chief engineer. During his service he came into close touch with the French radio service. This included a period at the station at Lyons, which is the most important radio center of that country. The training of cadet officers in signaling became an important part of the army work in France, and Captain Ranger was a member of the instruction staff of the First Corps signal school at Goudrecourt. Later he was

put in charge of the department of military signaling at the Saumer artillery school, where at the signing of the armistice there were 2200 cadet students. After the armistice a thorough course in radio at Sorbonne University was organized by the French specialists, and Captain Ranger handled the translations of these lectures. Research work on eliminating interference in radio receiving was conducted that led to a new type of apparatus which was further developed on returning to this country. For the last year Captain Ranger has been in charge of the Signal Corps radio laboratories at Little Silver, N. J., where it has been the endeavor to put into substantial, usable form the instruments which the war demonstrated to be necessary for the equipment of the army. Captain Ranger was graduated in 1911 from the Massachusetts Institute of Technology."

Databoy, Dick! 'Twas a good picture of you, too. — Another tribute to an elevener is the following from *The Tech* of August sixth:

"R. E. Runels, '11, Course I, civil engineering, of Lowell, is a member of the General Building Company, Inc., which is building the new Pratt School of Naval Architecture. Shortly after graduation Runels was a foreman in construction work in the field and then worked as an hydraulic engineer in New York. He acted as one of the resident engineers of Lockwood, Greene & Company, engineers in Boston, until 1917. During the period of the war he supervised the manufacture of the .45 Colt cartridges in the United States Cartridge Company of Lowell. After the signing of the armistice he became associated with H. Newton Marshall Company and shortly afterward became a member of the General Building Company. Runels is giving his personal attention to the work on the Pratt School and is particularly interested in it because of his connection with Technology."

We'll tell the world it's a good-looking building, Ralph, and is fast nearing completion. — R. A. Seaton, II, has just been appointed Dean of the Division of Engineering at the Kansas Agricultural College and writes:

"We have a very good and growing engineering school here. The laboratories are well equipped, we have a strong faculty, and last year had over one thousand engineering students. An addition to our engineering building, now under construction, will cost $200,000. Other Massachusetts Institute of Technology men on our faculty are: C. F. Baker, '07, Professor of Architecture; C. E. Pearce, '13, Associate Professor of Drawing and Machine Design and C. E. Hanson, '08, Instructor in Drawing."

Good for you, Seaton! — W. Y. Stamper, Jr., I, was appointed a first lieutenant, Regular Army, Corps of Engineers, according to General Orders issued September 20.

October 22 the *Times-Herald*, Newport News, Virginia, carried the following story:

"A quiet, but pretty wedding with only the families and a few intimate friends present, celebrated Wednesday evening at the Thirtieth Street Christian Church, was that of Miss Bertha M. Johnson, daughter of S. P. Johnson, of Surry County, and C. Lawrence Bartlett. The church altar was banked with palms and ferns for the occasion, and Mrs. J. M. Slaughter presided at the organ. The ceremony was performed by Rev. Mr. Long of Hampton. The bride wore a smart traveling suit of blue tricotine, with hat and accessories to correspond. Her only ornament was a string of pearls, the gift of the groom, and she carried a shower of bride's roses. Miss Ruth Johnson attended her sister as maid of honor. She wore an afternoon gown of black lace over burnt orange, with a picture hat. Her flowers were pink rosebuds. L. R. Sorenson, of this city, accompanied the groom as best man. After the ceremony, Mr. and Mrs. Bartlett left for Old Point, where they took the steamer for Baltimore. From there they will motor to Buffalo, Niagara Falls, Boston and other points in the North. Upon their return they will make their home at the Shirley."

Hearty congratulations from your classmates, Bartlett!

Your secretary has arranged an informal gathering of 1911 for the Walker Memorial on the evening of the eleventh day of the eleventh month. Details of this affair will be chronicled in the next issue. Till then — *write to Dennie!*

Now for some changes of address to close.

Changes of Address

Harry S. Alexander, 572 Ellicott Square, Buffalo, New York; Eldred E. Besse, 38 Crestwood Avenue, Tuckahow, New York; Pelayo Chinchilla-Kirkpatrick, Hacienda de las Mercedes, Melipilla, Chile, S. A.; W. J. Buckley, 1162 Dolores Street, San Francisco, California; Rufus Crane, 195 Griswold Street, Delaware, Ohio; Richard W. Cushing, Office Chief of Engineers, Washington, D. C.; Vernon S. Foster, Fort Scott, Kansas·

Louis R. Golden, 152 Gallatin Street, Providence, Rhode Island; Prof. Robert T. Haslam, 72 Freeman Street, Arlington 74, Mass.; Paul Kellogg, 20 Dover Street, Wellesley, Mass.; Captain George C. Kenney, McAllen, Texas; Max Kushlan, 3309 West Division Street, Chicago, Illinois; Harold S. Lord, Pratt & Whitney Company, Hartford, Connecticut; John L. McAllen, Jumbo Mine, Kennecott, Alaska; Seymour M. Niles, 49 State Street, Lynn, Mass.; Webster Richardson, Cyrus Peirce & Co., Citizens National Bank Building, Los Angeles, Cal.; Harry W. Waterfall, 53 Fairbanks Street, Brighton 35, Mass.; W. O. Whitney, 127 North Sixth Avenue, New Brunswick, New Jersey; Irving W. Wilson, Aluminum Co. of America, 2400 Oliver Building, Pittsburgh, Pennsylvania; Marcus M. Cory, Box 217, Reno, Nevada; James F. Duffy, 477 Talbot Avenue, Dorchester, Mass.; Kenneth Greenleaf, 452 Taylor Avenue, Detroit, Mich.; Isaac Hausman, The Building Products Company, Summit Street and Sandusky Avenue, Toledo, Ohio, Arthur H. Rooney, 1036 Oak Hill Avenue, Youngstown, Ohio, Abraham Shohan, 6 Dennison Street, Roxbury.

1912

RANDALL CREMER, *Secretary*, 7 The Circle, Rochelle Park, New Rochelle, N. Y.

FRED J. SHEPARD, JR., *Assistant Secretary*, 568 East First Street, South Boston, Mass.

Summer seems to be a poor time for gathering news. In any event the assistant secretary can truthfully say that none has come in with the bare exception of the following. May I not request that each one of you reading this, sit down and indite a short snappy epistle.

B. H. Morash, Course VI, has just arrived in Calcutta, India, where he is assistant general manager of the British American Machinery Co., one of W. R. Grace & Company's subsidiaries. He should be able to welcome E. M. Mason, also Course VI, who is just returning to India for the Standard Oil Company. The following from the Pittsburgh *Leader*, tells more about him:

"The engagement of Miss Elizabeth S. Hammett and Mr. Edward E. Mason is announced. Miss Hammett is the daughter of Mrs. and Mr. E. S. Hammett, of Heberton Avenue. She is a graduate of Pittsburgh School and Kindergarten College. Mr. Mason's home is in Boston, Mass. He is a graduate of the Massachusetts Institute of Technology. For six years he has been with the Standard Oil Company in Calcutta, India, and will return to that city with his bride. He is a nephew of Dr. Luther Freeman, of the Emory Methodist Episcopal Church.

V. L. Gallagher, also Course VI, has the following said of him in the New York *Journal of Commerce:*

"Executive of the supervision of the agency brokerage department and other three-company matters in the American Eagle, Continental, and Fidelity-Phenix, formerly handled by Assistant Secretary Paul L. Hald, will now be under the direction of Vincent L. Gallagher, who in 1919 organized the business development department of the Evans Company. Mr. Gallagher will continue his management of this department in addition to his new duties. Mr. Gallagher in 1913 entered the western branch office of the Aetna Insurance Company, in Chicago, and in 1914 became a special agent for the Aetna in Ohio. During 1918 he was an Ensign of Aviation in the Navy. Mr. Gallagher is a graduate of St. Xaviers College of Cincinnati, and of the Massachusetts Institute of Technology. He is the son of Thomas E. Gallagher, western general agent of the Aetna."

1913

F. D. MURDOCK, *Secretary*, Box 6, Station H, Buffalo, N. Y.

R. CHARLES THOMPSON, *Assistant Secretary*, 120 Milk Street, Boston, Mass.

We have notices of four visits of the stork. Phil Capen and F. C. Hersom were two of the lucky ones. Janet Capen was born on July 27 and Ted Hersom was presented

with a husky daughter on April 9. A real snow baby is Martha Lawrence, born to Mr. and Mrs. H. M. Lawrence, III, at Kennecott, Alaska, on January 15, 1920. Joe Strachan, I, is the proud and happy father of Richard H., born September 7. Something of a boom is on in the Class marriage market. Back in January, H. E. Beckman, III, was married in New York to Jeanne Jacoby, Barnard College, 1917. On the twenty-fifth of September F. T. Smith was married to Ethel F. Schumann at Jamaica Plain, and Ernest Weller, VI, was married to Elizabeth R. Goe at Philipse Manor, New York. On Saturday the twenty-fifth of September T. J. Lough, I, was married to Genevieve Simpson at Manden, N. Dak., and Halsey Elwell, II, to Leona A. Smith at Newton, Mass. On Wednesday, the sixth of October, M. P. Allen, I, was married to Hazel Leigh at Milwaukee, and E. D. Yerby, I, and Natalie S. Veltman were married at San Antonio, Texas.

Charlie Thompson has started to inject some of his life into local Boston Class activity. He has arranged a Class dinner at the Copley Square Hotel on October 25. He has secured as a speaker Mr. Ricker, a former professor of Psychology at Harvard, who has done much work on labor problems from a psychological viewpoint. Get-togethers of this sort are not only pleasurable but profitable. Men at our stage of business life and experience have much to learn in common and can get much benefit in the exchange of opinions and discussions which always come up at meetings of this kind. If you are to be in or near Boston at a certain date do not fail to find out if there is to be a Class dinner, so that you can be there.

Two of our Class must speak Spanish or starve, from the evidence of their present locations. W. S. Black, III, is in Peru, S. A., with the Vanadium Corporation of America. — Dick Cross, VI, is manager of the Madrid, Spain, office for the Aluminum Co. of South America. We are very much grieved to learn from Harold S. Johnson, VI, that last year his wife died, leaving him two children. Such real misfortune makes most of the troubles which most of us labor under seem very petty. Here's wishing all power to Johnson in his struggle. — Roger Freeman, VI, had certainly a man's size assignment to supervise the design and construction of a $15,000,000 armor plant for the Navy Department. Don't miss a word of his letter which describes a real achievement. "The last time I wrote you was two years ago in June when I was just finishing up the construction work at the Erie Forge and Steel Company for the Navy Department and getting ready to take charge of the armor plant work. These last two years have been about the busiest I ever hope to put in.

I started in Washington in June, 1918, at the Bureau of Yards and Docks with a drafting force of one-half dozen structural steel draftsmen and architects, and gradually built up from the Erie organization, the work at Milwaukee and Cincinnati, and including my own pre-war crowd, a designing force which amounted to over forty men at its peak. We worked day and night that first summer to get the general plans out and in October, broke ground at South Charleston.

We built up our own construction organization and have carried on the work without recourse to a general contractor. At its maximum last fall our construction force consisted of over 1500 men. Thus we have had the fun of starting in at the beginning with bare drafting tables and an open 200-acre lot, and carrying to completion the construction of an entire plant for the manufacture of armor plate and heavy gun forgings: i. e., up to 20″-50 calibre, which will cost upwards of $15,000,000.

The plant consists of an open-hearth building, 516 by 324 feet, containing three 60-ton open-hearth and two 30-ton Heroult furnaces; a forge shop 644 by 477 feet of an original "H" type, which will contain a 14,000-ton forging press, a 6500-ton forging press, and twenty-five heating and treatment furnaces, mostly of the car-bottom type, for which the car-bottoms are 15 feet wide and average up to 60 feet long; a machine shop 319 by 552 feet; and a gun-treatment building 111 by 322 feet. The latter building has a high portion for the treatment of big guns which will be over 200 feet high, with a 75-ton crane located 165 feet above the ground, and a concrete pit 75 feet square and 60 feet deep.

We are now erecting the twenty-three electric traveling cranes which range from 75 to 250 tons, with the exception of the stock-yard cranes and the charging floor crane which are 15 tons and 25 tons respectively. All crane spans except two are 100 feet wide.

To date we have placed about 40,000 cubic yards of concrete, 23,000 tons of structural steel have been erected, and over one-half a million cubic yards of excavation have been handled. We have spent nearly $10,000,000 on construction work alone.

We have, of course, run into innumerable interesting problems in heavy foundation work as well as in structural and industrial design.

By the middle of the summer I hope to have the major items of construction work completed, and have submitted my intention to resign about the first of August. I then hope to get organized on my own hook, located either in Cleveland or Chicago.

This has been a Massachusetts Institute of Technology job. Walton Sears, '02, handled materials and office force; Stearns, '02, was until a year ago in charge of water supply and sewage disposal work; Hepinstall, '15, has been in charge of the drafting room; Tom Callahan, '14, has been in charge of the construction work in the field; and Fritz Bloomquest, '14, has been in charge of the concrete work. Captain R. E. Bakenhus, U. S. N., Assistant Chief of the Bureau of Yards and Docks, is also a Tech man, as is Lieut.-Comdr. Ralph Whitman, '02, who will relieve me.

We have a flourishing Tech Club and have had dinners once a month. J. B. Pierce, '11, is secretary. Waddel, Tisdale and, until a year ago, Tolman, Rosenblat, '12, and O'Brien, '16, have been regular attendants in addition to our crowd."

Lee Bowman, IV, is head draftsman for Charles D. White, architect. — Lester Hoyt, V, is now in charge of the general research laboratory of the Larkin Company of Buffalo, N. Y. — H. K. Franzheim, IV, is associated in Chicago with C. Howard Crane, architect. — H. Hsin, I, is manager of the sales office for the Han-Ych-Ping Iron and Coal Co., Ltd., at Hankow, China. — B. S. Munch, II, is associated with a new concern in Southington, Conn. They manufacture manifolds, bent and tapered tubing for automobile, aeroplane and marine motors.

1914

H. B. Richmond, *Secretary*, 12 George Street, Medford 55, Mass.

G. K. Perley, *Assistant Secretary*, Hill Side Terrace, Belmont, Mass.

LUNCHEON First Tuesday of Each Month
12.30 P.M. Sharp, Boston Tavern, 347 Washington Street, Boston.

Did you see the 1914 reunion photograph in the July issue of the Review? If you did not you will find it opposite page 499 with the 1906 notes.

The past summer has been rather quiet from a news point of view. There seem to have been no important events and very little news. The monthly luncheons were omitted during August and September. Considerable enthusiasm was shown at the October luncheon and much regret was expressed by those attending that more 1914 members around Boston did not appreciate the social possibilities of getting together for a brief three-quarters of an hour once a month. These luncheons provide an almost unlimited possibility for the exchanging of ideas, the discussion of business problems and the keeping up of friendships. Let every Greater Boston fourteener attend the next luncheon. Fourteeners outside of Boston who visit the city from time to time should try to do so on luncheon dates. Those attending the October luncheon were H. S. Wilkins, XIV; R. E. Merry, I; S. H. Harper, IV; F. C. Atwood, XIV; E. C. Crocker, XIV; F. L. Ahern, I; C. A. Corney, VI; G. K. Perley, VI; H. B. Richmond, VI. Note how well the mechanicals and the chemists were represented! Perhaps they were afraid they would have to pay their Class dues if they showed up.

And as to Class dues. The year is nearly gone and only fifty per cent of the Class have paid their dues. At the Class dinner in June cards bearing the names of members who had not paid their dues were distributed to those present, who agreed to write to the delinquent members. The total result of this campaign was ten dollars, five of which was paid by one person. Can it really be that there is such indifference in our Class? Or is it just carelessness?

Although news in general is very scarce this month, there are a few social items of interest. The first item of general importance involves a no less distinguished person than Dinny Chatfield, II. From Burlington, Vt., we have received word that Mr. and Mrs. W. T. Scofield have announced the engagement of their daughter Grace to Charles Hugh Chatfield, lieutenant (j.g.) U. S. Navy. For a long time we had been puzzled to know why Dinny was still staying in the Navy, but we understand it all now. The girls

always did fall for him when he used to appear on Boylston Street with his Massachusetts Institute of Technology uniform, but with his naval aviation uniform they did not have a chance. Anyway Dinny, we are all with you and you have the congratulations of the Class.

The Class, and especially the members of Course VI, will receive another pleasant surprise with the announcement that J. A. Judge, VI, has joined the benedicts' class. He was married on October 12 to Miss Hazel F. Doyle. Jimmie took an extensive wedding trip through the Middle West and during his travels met several fourteeners. He is now residing in Holyoke, Mass., where he is superintendent of the Highland Manufacturing Co. Jimmie is just as conscientious as ever. In order not to be absent from his work any longer than possible, he picked out a holiday on which to be married.

Mr. and Mrs. Howard A. Barickman have announced the marriage of their daughter Esther Frisbie to Mr. Chester Pelkey Davis, X, on April 19. It looks as if Chet also did not like to lose any time. Chet is with the Frank H. Davis Co. of Cambridge, Mass.

From Worcester comes the announcement that R. F. Zecha, VI, joined the proud fathers' league on May 24. The new arrival is a daughter Eleanor. While in Worcester recently your secretary stopped in at Zecha's storage battery service station to congratulate him but was disappointed by not finding him in. A card has also been received from Mr. and Mrs. F. C. Atwood, XIV, announcing the birth of a daughter Eleanor on September 5.

Through the courtesy of Prof. C. E. Locke, we have received the following announcement of the marriage of W. S. Conner, III, at Palo Alto, Cal.:

"Mr. and Mrs. Leigh Dugmore announce the marriage of their daughter Eunice Helen to Mr. William Stryker Conner on Tuesday the fourteenth of September, nineteen hundred and twenty."

Those of us here in Boston greatly regret that our president, A. C. Dorrance, I, has resigned from the Gorton Pew Fisheries Company at Gloucester and returned to the Joseph Campbell Co. at Camden, N. J. We cannot fail, however, to congratulate him on the very excellent position which he now has with the Campbell Co. We hardly expected that Buck would reverse the natural order of events and go from fish to soup.

G. H. Beard, I, has left the Board of Education of Minneapolis and is now with Pike & Cook Co., general contractors in Minneapolis. Jerry writes that his work calls for about everything that goes with contracting, from estimating and designing in the office to engineering work in the field. He also calls our attention to the fact that he has already celebrated his fifth wedding anniversary and that he and Mrs. Beard still recall the days when the Tech evening classes were held at the New England Conservatory.

E. C. Crocker, XIV, is still at the Institute as a research associate in the Research Laboratory of Applied Chemistry. He writes that his work consists of trying to find a practical process for the utilization of southern pine wood for white paper manufacture. He expects that his work will continue into next year at least. J. H. Currier, II, who still retains his commission as a lieutenant in the navy, spent the summer cruising on the U. S. S. Delaware. During the past year Joe was instructing at the Naval Academy at Annapolis.

L. D. Charm, VI, who is at the head of the National Electric Construction and Supply Co. of Boston has been very successful of late. In September he was awarded the contract for the electrical equipment in a new seven-story factory building in Kendall Square, Cambridge. Among some of the other large contracts for the complete electrical systems he has received are a seven-story leather building, a bank building, two auto showrooms and garages, and several apartment houses. — We cannot think of contracts without thinking of F. J. Van Etten, I. Van has been constructing several large garages and other structures in Greater Boston during the past year. Your secretary has noted signs reading "F. J. Van Etten Co., Inc., General Contractors," on several buildings under construction.

The Boston *Globe* of August 31 carried the following item about A. R. Stubbs, XI.

"Arthur R. Stubbs, selected by Samuel L. Powers, George S. Baldwin and John H. Sherburne, the special committee appointed by the stockholders and directors of the Commercial and Mutual Finance Corporations, subsidiary organizations of the H. V. Greene Company, to take charge of the affairs of the two corporations, has already begun his duties.

Mr. Stubbs has been connected with the First National Bank and because of his financial and executive ability was chosen to minister to the affairs of the companies."

A recent mail from China brought a note from H. F. Merrill, XI, stating that he was still with the Standard Oil Co. at Shanghai. He is employed as assistant to the manager of operating division. Merrill also informed us that he was married a year ago this October. — L. Standish Hall, whose mail has been returned from all known addresses, has at last been located in Oakland, Calif. He is assistant engineer with Duryea, Haehl & Gilman. — H. H. Ambler, I, who was with the Solvay Process Co. at Detroit, Mich., has been transferred to the Hutchinson, Kansas, plant of the same company.— R. E. Wells, Jr., III, who was metallurgist for the American Smelting and Refining Co. at Murray, Utah, is now at East Helena, Mont., for the same company. — H. D. Shaw, VI, and E. A. Mitchell, VI, have gone into business together for the manufacture of electric cables. Their stationery bears the heading "Mishaw Electric Cables, Haworth, N. J."

Letters addressed to the following men remain unanswered. Can any one supply information as to what they are now doing? P. F. Benedict, I; F. C. Healey, VI; C. M. Berry, VI; J. T. Holmes, VI; W. C. Broga, XIV; J. W. Horton, XIV.

F. A. Ralton, I, is reported riding around Lawrence, Mass., in a bright green Reo roadster. Ralton is an engineer for the American Woolen Co. and is stationed at the Washington Mills. — F. L. Ahern, I, who has been in the south on appraisal work for Stone & Webster, is now located at their Boston office. — G. O. Stewart, VI, who made his first acquaintance with the Philadelphia Electric Co. while doing appraisal work for D. C. & W. B. Jackson is now in their engineering department. — C. G. Maier, XIV, is reported as doing a little independent contracting work in New York City. We understand that house-building is his specialty. — H. S. Wilkins, XIV, who was formerly with Gray & Davis, Inc., is now with H. C. Dodge, Inc., at South Boston. Wilkins has been working on the development of a farm-lighting outfit. The H. C. Dodge Co. recently took over the proposition from Gray & Davis and Wilkins was transferred at the same time. — R. E. Merry, I, is now in charge of the Boston office of the U. S. Gypsum Co. of Buffalo.

W. J. Hauser, IV, who has been in Luxor for the Metropolitan Art Museum of New York, returned to the United States for a brief visit this summer. It is understood that the expedition has been very successful and has resulted in valuable finds. Hauser has started again for Egypt to continue the excavation work. He is to stop at Phaereus and Alexandria on his way to Luxor.

Address Changes

H. A. Ambler, I, Care of Solvay Process Co., Hutchinson, Kansas. — C. H. Burnes, X, 750 Longview Avenue, Akron, Ohio. — H. N. Calver, XI, Department of Health Service, National Headquarters, American Red Cross, Washington, D. C. — W. S. Conner, III, 2416 Allston Way, Berkeley, Cal. — C. P. Davis, X, 63 Mt. Vernon Street, Cambridge, Mass. — A. C. Dorrance, X, Care of Joseph Campbell Co., 32 North Front Street, Camden, N. J. — C. P. Fiske, II, 22 Dover Road, Wellesley, Mass. — C. P. Fox, XI, 179 Bay State Road, Boston, Mass. — L. Standish Hall, I, 5448 Boyd Avenue, Oakland, Cal. — J. T. Holmes, VI, 719 Ferguson Building, Los Angeles, Cal. — Malcolm Lewis, VII, 356 William Street, East Orange, N. J. — H. A. Mayer, XIV, 909 Second Street, Hillsboro, Oregon. — H. F. Merrill, XI, Care of Standard Oil Co., Shanghai, China. — W. L. McPherrin, II, 3623 Cleveland Street, Dallas, Texas. — C. W. Ricker, VI, 62 Newport Street, Arlington, Mass. — R. D. Salisbury, IV, Box 413, Wayne, Mich. — A. T. Stearns, V, 103 Clay Street, Central Falls, R. I. — R. E. Wells, III, Care of American Smelting and Refining Co., East Helena, Montana.

1915

Francis P. Scully, *Secretary*, 70 West Chippewa Street, Buffalo, N. Y.

Howard C. Thomas, *Assistant Secretary*, 34 Floral Street, Newton Highlands, Mass.

On Monday, June 21, the reunion dinner was held at the Hotel Vendome. Old friends met again and old memories were renewed. The unmarried consoled the benedicts

and the staid old family men retorted with their side of the case. Thirty-three fellows gathered and the spirit of undergraduate days re-entered all those present. Plans for the Class were discussed and, on the resignation of Bill Spencer, permanent secretary, whose residence in New York made his position very difficult to fill properly, the assistant secretary was elected to that office. (Incidentally the lack of a proper Class letter in the July issue is entirely the fault of the present secretary.) Howard C. Thomas, I, was appointed assistant secretary.

Here is the news of some of those present at the dinner.

R. L. Fletcher, II, is still with the Providence Gas Company. He is rapidly assuming the appearance of a real serious business man. These young fellows surely do grow up. — Clive Lacy, VI, is still with Filene's. He reports an addition to his family, a son, John W., born June 10 — Viking Enebuske, I, is in the Pittsburg office of the Foundation Company engaged mainly in estimating. Viking was one of the faithful attendants at the reunion and was in evidence at all the functions. — Carl W. Wood, I, is with Stone & Webster in the Boston office. He is at present living in Winchester.— St. Elmo Tower Pisa, IV, is following architecture in New York City. On the side he is promoting a large real estate proposition in upper New York — Harry J. Murphy, I, is with Stone & Webster at the Boston office. — H. W. Lamson, VIII, is engaged in submarine detection work. He still gives his address as Arlington. — A. E. B. Hall, II, is sticking pretty close to Maine. He is located up in Lincoln on paper work with the Eastern Manufacturing Company. Incidentally, Charley Paine, II, is up there with the same concern. — George J. Moulton, the best man in his Class at walking on his hands, returned to the fold after having been absent from Class functions since 1913. He is living in Medford. — G. T. Rooney, the irrepressible carrot-top, owns up to a happy married life. He managed to get out for the banquet but had to go home early. George is now working or spending his time with the Scully Company, Cambridge. — Bill Spencer, IV, came up from New York for the banquet. The fellows tendered Bill a rising vote of thanks with an M. I. T. on the end, for his many efforts in behalf of the Class during his five-year tenure of the secretary's office. Bill is designing and estimating for the White Construction of New York. — Otto Hurlburt, II, and Mrs. Hurlburt were enthusiastic reunioners. Otto is now with the Corning Glass Works, Corning, N. Y. — L. H. Young, II, is doing special work at the Stute. Louis is married and is living in Auburndale. — Frank Herlihy, who lives in Medford, came to the dinner after a lapse of years. — John Homan, II, is another of the gang whom the reunion brought to activity. John lives in Swampscott. — Bob Mitchell, V, who first went to Buffalo in the government service, has remained there in the chemical business, living at the University Club. — Lots of nice things have been heard about Charley Hall, I, more popularly known as Loring. He has gone to New York to open an office for the Carr Fastener Company, who are the manufacturers of the Dot line of fasteners which are so extensively advertised. — Seward Highley, I, has returned from Canada, and is again located in Boston. — Lucius Bigelow, V, whom we understand received a doctor's degree in chemistry at Yale, and who was an instructor in chemistry at St. Lawrence University last year, is now instructor in organic chemistry at Brown. The secretary is willing to place a small bet that nobody in Brown puts anything over on Lucius. — Abraham Hamburg, XI, has wandered from his Technology training and is now engaged in the engraving business under the title "Superior Engraving Company," Boston. The secretary will vouch for the quality of the work turned out by this concern.

Announcement of the marriage of Bill Jennings to Cora Estelle Massberger on Saturday, June 19, at Salt Lake City has been received. They will be at home at 1205 Second Avenue, Salt Lake City.

Mr. and Mrs. Ferdinand Giere announce the marriage of their daughter, Helen Potter, to William R. McEwen, II, on September 16, at Shrewsbury, N. J.

Alden D. Wheeler, Jr., II, was married to Miss Vivien Galbraith of Toronto.

Announcement is made of the birth of George Lempureuse McMurtrie on May 14, 1920.

In answering the reunion postals many of the fellows had some remarks to add. George J. Easter, XIV, 716 Willow Avenue, Niagara Falls, "Sorry not to be with you but I had my vacation to get properly married in recently. Good luck to you all." — Clifford C. Sifton, "Sorry, but I've got to stick to business."— J. M. Livermore, I, New Departure Manufacturing Company, Bristol, Conn., "Mighty sorry not to be with you Monday.

Regards to all the boys." — Andrew Wardle, XI, Ford, Baker & Davis, Bank of Piræus, Athens, Greece, "Sorry to miss our first five-year bust. Getting a lot of material for a new edition of 'Innocents Abroad.' Here's wishing you all a happy summer." — Jacob Cohen, I, 15 West Thirty-Second Street, Bayonne, N. J., was "very sorry." — So was Ken Kahn, X, South Bend, Ind. — Bill McEwen, II, says, "My inability is not of my choosing." — Henry Daly, II, 711 Park Building, Pittsburg, "Count me out of everything — will be too busy. Enjoying my honeymoon during reunion week." — John S. Gallagher, I, Port Arthur, Texas, "Happy days to you all, but can't be there." — Gabe Hilton, III, "I'm sorry but I can't afford it this year. Give my best to the gang." — Jimmy Franks, care White Company, Cleveland, "Sorry I cannot be with the bunch. Please give my regards to all." — H. J. Berg, II, 1846 Van Ness Avenue, San Francisco, "Sorry I can't join the gang — it's too far to walk." — Bill Campbell, I, care The Automatic Machine Co., Bridgeport, Conn., "Sorry I won't be able to be on hand as I know it will be a good party." — A. H. Anderson, I, "still in South America." — Bill Holway, XI, Holway Engineering Company, 16 East 14th Street, Tulsa, Oklahoma. — "Wish to H—— I could be there." — Bill Smith,I, Lt. U. S. N. Public Works Office, Navy Yard, Norfolk, Va., "Regret I can't be with you — but official business prevents. Am busier than ever acting as public works officer. Regards to the gang." — F. H. Boynton, VI, 1119 Central Building, Los Angeles, Calif., "Very sorry but there is no chance — here is my best to all." — Oliver G. Norton, II, "Mighty sorry but I cannot make the trip this year much as I would like to do so. Best regards to all the boys of Course II and 1915."—From 18 Rue Bouderagous, Anvers, Belgique, D. B. Baker, VI, sends his regrets but writes, "Will be on hand at the next five-year reunion."

Sarkis Bagdoyan, I, is by this time in Egypt waiting for Armenia to open up to outsiders. He has been engaged in construction work and was with the Turner Construction Company for some time. — Otto O'Donnell, I, is now in Boston with the Massachusetts Bonding Company. — Les Morse, I, still remains in army aviation. He has been taking a special course at Tech, although he is attached to the McCook Field, Dayton, Ohio. From the reports the secretary gathers he is some little boy among the girls out in Ohio. — Bernard Landers, X, is now the owner of the Spear Chemical Co., New York City.

Those of us who as freshmen hung with bated breath on the words of wisdom as they fell from the lips of David Carb will be interested to know that "Immodest Violet" playing at William A. Brady's 48th Street Theatre, New York, is from the pen of our old instructor.

The secretary is temporarily giving up his active connection with the Scully Company, Cambridge, Mass., and has gone to Buffalo in connection with The Houdaille Company. This company markets in this country the Houdaille Shock Absorber, a French invention — now standard equipment on about twenty foreign cars. These are now manufactured at Buffalo and an extensive demand for them has arisen in the United States. The office is at 70 West Chippewa Street, Buffalo, and any 1915 men are cordially invited to come around. Howard C. Thomas will assume the active Boston work and all correspondence should be directed to him at 34 Floral Street, Newton Highlands 61, Mass.

When Frank went to Buffalo he left some notes with this letter but they couldn't have been written while he was riding in a car equipped with Houdaille Shock Absorbers (we don't get anything for this free advertising), because the assistant secretary when he tried to read them thought he had picked up some of his four-year old daughter's "Notes on Applied Mechanics." Therefore if the names of some of our "in-laws" are misspelled blame Frank because he is not here. Incidentally "they say" that there are, or were during the war, other attractions at Buffalo for Frank beside shock absorbers. We hope he gives us warning, because we have to count our pennies in advance.

Our old friend Ned Stelle, I, who moved from Brooklyn to Minnesota to become assistant engineer with the State Highway Department, burst into print in the *Engineering News-Record* of September 9, with a very interesting letter to the editor on "Highway Location and Design." Ned comes right out "in meeting" with his opinions and is commended for them. Here's hoping that he keeps up the good work.

Henry Sheills, I, who has a very prosperous contracting business in Boston, received a letter the other day from Larry Quirk, I. Larry is living at 491 High Street, Middletown, Conn. His letter announced the birth of James Edward Quirk on August 29. Larry's letter said, "The 7¾ lbs. is mostly air I guess from the way he hollers for his meals. Little does he guess how he'll have to miss a few meals every day as his old man

does, to keep in shape to fit his clothes." Henry himself has a daughter, Marjorie Eugenia, born January 5, 1920. This announcement was omitted from the April REVIEW.

Since the regular Class letter was written (October 25) the questionnaire and accompanying letter have been sent out. They were mailed on Friday morning, and the first mail Saturday morning brought replies and dues from Eastman Weaver, XIV, Clive Lacy, VI, and Abraham Hamburg, XI. As this is being written (Saturday night, October 30) no more have been received, but we hope the rest of the Class will be as prompt in favorable answers as these three have been.

During the last week we have received interesting news from several members of the Class.

First, a clipping and photo from the Boston *Globe* of June 27, (we don't know the reason for the delay) as follows:

"One of the June brides is Mrs. Henry F. Daley (Miss M. Frances Tagen), daughter of Mr. and Mrs. John J. Tagen of Dorchester. She was married recently at St. Margaret's Church, Dorchester, by Rev. F. J. Kenney. Mr. and Mrs. Daley will make their home in Pittsburgh, Penn.

"Mr. Daley is the only son of Mr. and Mrs. Thomas F. Daley of Fall River, Mass., and is a graduate of the Massachusetts Institute of Technology, Class of '15."

Two men whose addresses have been lost for three or four years have been located. "Eddie" Fonseca, VI, betrays his address by means of cards announcing the birth of Harry Lawrence Fonseca, September 25, 1920. We are glad to hear that Eddie is married and is a proud father. He is living at 393 Belmont Avenue, Newark, N. J. We hope to have more news of Eddie's doings from his reply to the questionnaire.

The other lost member is Edward L. Sullivan, II, who is now with the Charles H. Tenney Co., Devonshire Street, Boston. We are glad we met Sully because we were getting tired of having all our letters to him returned undelivered.

Millard Pinkham, I, was up from New York over the week-end. He is now with the Columbia Graphophone Company in the executive offices but hopes to get back to Boston in time. Personally, we don't believe that they will lure "Pink" from the "bright lights" for a long time.

Fritz Blomquist, VI, has returned from the Armor Plate Works, Charleston, W. Va., to his home at Lynn and is now working there for the General Electric Company.

Waldo F. Pike, I, is celebrating the arrival of another girl on Tuesday, October 26. This makes Waldo's third girl. Congratulations, Waldo! Waldo has recently purchased a home at 33 Hunnewell Street, Needham Heights, Mass.

By the time this issue of the REVIEW is off the press, or possibly before, all the men whom we know have ever been associated with 1915 will have received a blank to fill out and return to the assistant secretary. As we will say on the accompanying letter, this data will be used to make a complete cross file, by courses and geographical location, of all 1915 men. We want to find out who the live members of the Class are and eliminate the deadwood, who for some reason do not care to be classed with 1915 socially. We earnestly request that you take a few minutes and fill out the blank *legibly* and return immediately. This file will be for your use and we will be only too glad to help you in any way we can. For example, if you are going from Boston to Chicago with stopovers at Albany and Buffalo we will tell you what members of our Class are located in these cities and their business and home addresses. The file will be worth just what *you* make it and we enlist your hearty co-operation. Incidentally, don't forget your Class dues are now due, as all of this work takes money and part of the dues will be used for this purpose.

1916

JAMES M. EVANS, *Secretary*, 542 Broadway, Paterson, N. J.

Late in September Rusty White, one time cheer leader and moving spirit behind the ramifications and activities of the once glorious Class of 1916, decided that the Class had been dead long enough, and sat himself down to start something. A letter to the editor of these notes, Chuck Loomis, resulted in the following letter being sent to some ninety-six members of the Class, from whom the news which follows has been gleaned.

TECH, 1916 — LET'S GO!

The 1916 column in the REVIEW is about to blossom forth, — after 'steen years of slumber; — and instead of the usual "No report from the secretary," we want to fill it with bright, breezy, bustling, news bits, from all the Class.

Your part is to sit down now and write us all the dope, — married or free, children or dogs, state of captivity, work (if any) and *particularly all the gossip about other 1916 men that you have heard.*

Speed — action. The next issue of the REVIEW goes to press early in November, and all your letters have to be edited and made up into one grand Class letter before that. In other words, do it now.

The two gentlemen, or bandits, who are underwriting this gamble on Class spirit have in their possession only about $7.98 belonging to the Class and they intend to blow it all here and now. As a result, we cannot afford to tackle all the Class now, — and you are one of a picked few on whom we are counting for a sure reply. Please note that "picked few" stuff and live up to the honor by writing us at once.

Letters should be addressed to

C. W. Loomis, Bemis Brothers Bag Co., St. Louis, Mo.

And should be addressed at once. The material will be edited here and forwarded to Boston for the REVIEW about November 1.

R. (RUSTY) H. WHITE,
1183 Henry Building, Seattle, Wash.
C. (CHUCK) W. LOOMIS,
Bemis Brothers Bag Co., St. Louis, Mo.
Self-appointed acting temporary secretaries

The letter is self-explanatory. The two signers are simply taking it upon themselves to see to it that the Class of 1916 revives its former glory and spirit. A copy was sent to the secretary, Jim Evans, but no reply has been received. It may be that it will stir him into action, and if so, the principal purpose of the letter will have been accomplished. If not, it is our opinion that he should be asked to resign and a new secretary, who will do the work, should be elected, preferably some one in Boston.

In the meantime, if there is no report from the regular secretary in this issue of the REVIEW, write Chuck Loomis, and he will see that the material is collected and forwarded to the REVIEW. If a letter from you is not included in this issue, get one in the next. Now for the Class notes!

Bill (W. W.) Drummey, IV, who was one of the committee that did its best to get all the money that sixteeners had last fall, writes on a letterhead that boldly heralds the writer as an 'Architect.' "As yet I still maintain my sanity in the midst of many slipping brothers; in other words, I am single and without children. As for work, the second item of your epistle, poor starving architects haven't any, as you may have discovered from any choice collection of statistics. As an item of interest I am spending much of my time in jail. I'm in charge of a quarter-million dollar job, — a hospital in the Suffolk County Prison. If any of the boys are, or expect to be incarcerated, they should look me up, I have free entré and, for a small consideration, can promise them big results.'

Bill Lidell, I, offered the following:

"Having only the other day thrown into my basket a letter addressed to me 'along with ninety-nine other college professors, etc.', for the purpose of interesting me in some kind of a raincoat, I am falling for your 'picked few stuff' (with reservations) and answering yours and Rusty's appeal for news. Mine will be plain statistics and somewhat brief. Upon integrating my attachments between the years of 1916 and 1920, I find as a result that I have two. They consist of a wife, née Elizabeth Woodworth, Radcliffe, 1917, and one son, William Andrew, Jr., aged 10 months. My place of residence is 24 Oakland Street, Lowell, Mass. I am at present engaged in explaining the mysteries of the versatile Bernoulli's Theorem to a hundred or more eager minds and following, as well as possible, the course in hydraulics laid down by Professor Russell. This year is my second at this sort of business. I saw Frank Hastie's father the other day and he said Frank was stationed at Fort Grant or Camp Grant in Illinois, being in command of a company of his own. Eddie Clarkson was around the Institute the other day. He is engaged in

some sort of business here in Boston. W. C. Sadler, who was in Course I, 1916, is back at the Institute studying for an M.S. degree."

Henry Morse, II, who since graduating has been to India and back, offers the next item:

"I have been working since last February (when I left my job as instructor in the Mechanical Laboratory at Technology) as test engineer, with the title of Aeronautical Mechanical Engineer (but it doesn't mean anything), in the Power Plant Laboratory at McCook Field. This is the engineering division of the air service. I am simply testing aviation engines and accessories. We have more than five hundred engines of more than fifty different types, both domestic and foreign. B. C. Boulton, is the only other 1916 man at the field, he was married August 19, 1920, to a Canadian girl, Miss Wenonah Berry, of Meaford, Canada. I have bought a house here and intend to make Dayton my permanent home. My son, Charles Phillips Morse, will be one year old November 16."

Ken Sully, III, the leader of the Class social season in our Junior year, has retired to the wilds of New Mexico, and writes from Hurley as follows:

"I am sorry to announce single, although I have made several unsuccessful attempts at marriage. I am more or less out of touch with M. I. T. doings out here and do not see any Tech men. However, Dan Comiskey, I, who is with the New Mexico State Highway Engineers, was in Silver City, only twenty miles from here, some time ago. We tried to get together, but could not do so, as he had to get back to Santa Fe unexpectedly. I am with the Chino Copper Company and working at their mill. The mine is twenty miles from here. We are operating only at a reduced rate, and from the present outlook for copper it will be some time before we get back to full capacity."

Ed Weissbach, II, who was supposed to be in St. Louis when the circular letter was sent out, turned out to be in Fairmount, Ga. His permanent address is 1214 Laidlaw Avenue, Cincinnati, Ohio. He writes:

"Am sorry I can't accept your dinner or lunch invitation, for I changed jobs on the first of the month. My first year after leaving the Stute I spent at the Goodyear Tire and Rubber Company in company with Johnny Ingle, Hal Gray, Arvin Page, Jap Carr and Flip Fleming. During the war, and until October first, I was connected with the Mallinckroat Chemical Works of St. Louis. This work was mainly that of looking after the construction of ether stills for making chemicals for the War Department. Am now with the Richardson Company of Cincinnati, and temporarily at least am at Fairmount, Georgia. We are making slate granules here for impregnating slate-surfaced asphalt shingles. We also make other articles, but not at this plant. Spencer Hopkins, II, is married and located in Cincinnati with the Pollak Steel Co. Hopkins has a son, Philip — M. I. T., '40. Hopkins was a naval inspector during the war. Vertrees Young, II, is located in St. Louis, North Side Young Men's Christian Association. Vert is doing very well with the J. C. Bulis Manufacturing Co. During the A. S. M. E. convention in June, ran across Johnny (Rev.) Fairfield. Rev. is now a professor at the Rensselaer Polytechnic. Hovey Freeman was also at the convention but as Mrs. Freeman was along I didn't get a chance to say more than 'hello'."

Name of writer omitted:

"I have your notification of October 14 and am delighted to know that an effort is being made to bring the 1916 column in the Reveiw back to life. You can be sure I will be glad to assist you in any way possible. As for news, I have very little. Nelson McRae, II, is general manager of the Linville Improvement Co., and Duncan and Hugh MacRae, trustees, Linville, N. C., timber merchants. He is doing very well and claims to enjoy life in the North Carolina timber. Moose Jewett, II, is married and according to latest reports is living in Buffalo, very much domesticated and otherwise apart from the world in general. Donald M. McRae, after a brief flyer in the bond business, is back in the Army with the rank of captain, and his address is Camp Travis, Texas. Gene Lucas, I, was married last spring and is living in Staten Island. You will probably get details of this from him, if not I will write you the whole story. You will probably hear from Don Webster. He is living at the Technology Club and has recently resigned from his position with the United States Rubber Company to accept a more lucrative offer with a firm of industrial engineers. As for myself, I am still roaming around, spending a great deal of my time south of the Mason Dixon Line, on business. I am leaving

tomorrow for a two weeks' trip to Cuba and in view of this fact I hope that you will pardon this all too brief and sketchy information."

Jack McDevitt, II, is in the machine shop business in Providence, R. I., and seems to think everything is going fine in a business way. He says: "I run into Hovey Freeman, II, and Sol Makepeace, II, every now and then, both look as if life agreed with them immensely. After three years of married life we can now exhibit a six-months old baby boy who is coming along nicely."

Sam Ellsworth, XI, sent in a smoke screen from Pittsburgh, as follows:

"Your $7.98 communication reached me last night, having been forwarded to me from Braintree. Any information I might have concerning 1916 men will undoubtedly be too late to be of any use. Then again our mutual friend, Francis Foote, probably has most of the dope and no doubt you have been in touch with him. I came to Pittsburgh last November to take a position with Morris Knowles' organization. My work has been chiefly with the division of investigations and reports. We have about ten M. I. T. men in our Pittsburgh office, so I naturally find myself in most congenial surroundings. Foote, XI, and Charlie Crosier, XI, are the only 1916 men here. Foote is just as tall as ever, a staunch supporter of Senator Harding, an Anti-League of Nations fiend, and secretary and treasurer of the Pittsburgh Association M. I. T. Charlie Crosier has been with the firm since 1917, a true engineer striving to make his 'pile.' Although not yet married he hopes to be sometime in the not far distant future. Like all the rest of us bachelors with nothing to drown our lonesomeness in but cold water, he is willing to try anything. You will probably hear from Gordon Fair, XI, but he will undoubtedly fail to tell you that he has written several articles and papers upon subjects pertaining to sanitary engineering, which have been published in some of the recent engineering and public health journals. From all appearances he has settled down to enjoy the life of a college professor. M. I. T. men seem to be plentiful in Pittsburgh, but 1916 men are rather scarce. Met Marquez on the street the other day but only had time to say 'howdy'."

Gordon Fair, XI, speaks for himself as follows:

"I have your most flattering epistle of October 14, and hasten to comply with your most laudable wish of really getting something about the Class of 1916 into the Alumni Bulletin. The legal time for declaring a person dead is, I believe, seven years and, as far as the Class of 1916 is concerned, this time is almost up. I therefore rejoice in welcoming 'the dear departed' and shall attempt to give you all the gossip I have about the men with whom I have kept in touch or of whom I happen to know a little something. Alexander Bresth has left his position with the Florida State Board of Health and has accepted a call to the University of Florida. H. W. Green has taken unto himself a wife, a mighty nice girl from Topeka. The last time I saw him he was still happy. Since then, he has lived in Mounds, Louisiana, and in Porto Rico, chasing mosquitoes for the Rockefeller Foundation. I believe the aborigines have dubbed him 'Doc Green, the skeeter chaser.' Eddy Clarkson is also with the Rockefeller Foundation and in charge of the anti-malarial work somewhere in the Southwest. I don't think Eddy liked Arkansas. At least, I am told he still carries a .42. Once in a while I hear that he has been around Cambridge which I imagine is a case of 'cherchez la femme.' Last spring I received a visit from our old friend, Thomas F. MacSweeney. Tom carries in his pocketbook a flag of the Irish Republic which De Valera gave him. He informed me that he had just started a contracting business of his own and that he was engaged to a charming colleen in Philadelphia. I saw Joe Farhi, the unspeakable Turk, the other day. He says he has been in Boston ever since he graduated and is now with the Boston Bridge Company. I believe that is all the information I have about men in our Class, unless you want to consider Hulse who was with us for a while and who is now taking Green's place in Mounds, Louisiana, and S. T. Barker who was also with us for a while and is now working for the Sanitary District of Chicago."

S. R. Berke, II, whom we knew as Ross Berkowitz, announces that he hied himself to the probate court and had the last three-quarters of the name cut off. Now and henceforth he will be designated in the annals of the Class as Berke. He was another of the money-getters who attacked the Class during the "drive." He supplied the following information:

"Bill Drummey, IV, and Bob Crosby, II, are regular patrons at Thompson's Spa, so the chances are that Bill is successfully adding bits of beauty to Boston's architecture and that Bob must be finding the cotton machinery business pretty good, for if you are

in touch with Boston news you would know that Thompson's is now catching it from the United States district attorney. Believe me, it takes a rich fellow to eat there these days, the only time I try it is pay day. I met an old girl (still quite young) of Kem Dean's, II, the other day and she told me Kem had given up his connection with the Sinclair Oil Co., deserted engineering and gone into the cotton brokerage business in Houston, Texas. Duke Rowlett, II, was up in Maine near me this summer, but I missed him. He is with the Sales Engineer Department of the Hyatt Roller Bearing Co. at Worcester, Mass."

Berke adds that he is still free and happy, with no ball and chain, and encloses a clipping announcing the wedding of Paul Buxton, II, to Miss Ruth Cummings. Unfortunately the clipping doesn't give the date, and as the self-appointed secretary has lost the announcement he received, we will date it "Recently." Hen Sheppard, II, was one of the ushers. Berke, in addition to working for some Boston Construction Company, is organizing a company of his own to market a device on which he has patents — a hanger to simplify the erection of form work for flat slab concrete construction.

Marshall Wellington, XI, writes:

"Have just taken up residence with my family at 36 Kane Avenue, Larchmont Manor, N. Y. This should be made my address. Family consists of two daughters, one, two years old, other eight months. I am working for Wallace & Tiernan Co., Inc., 349 Broadway, New York City, whose principal product of manufacture is apparatus for controlling chlorine gas used for sterilization of water supplies wastes, bleaching, etc. At present time am supervising installations for bleaching stock used to make paper. The person whom I have seen the most is H. B. Shepard. He is travelling the Southern New England States in a flivver, selling Jacklift trucks. He is very familiar with the news of members in this district and should be a great help. His address is 548 Orange Street, New Haven, Conn. I believe Gfroerer is an assistant superintendent of Yale & Towne. He rooms with Shepard. John Hood is assistant superintendent and chemist for a paper mill in Turners Falls, Mass. H. W. Green is married and is with the Rockefeller Foundation in sanitary work in Arkansas and thereabouts. E. W. Clarkson is with same people and is contemplating getting married. H. L. Foster is in some engineer's office in Detroit and has a son and daughter. I want to congratulate you two gentlemen and assure you I am back of you to the limit and I know that the rest are. Shepard was talking with me about the move you and Rusty have taken. He says that all that he has seen are in favor of it."

Charlie McCarthy, I, who is with the Bureau of Construction and Repair, Navy Department, Washington, D. C., doing remarkable things in airship design, writes all about the social life in Washington, but never a word about himself. You will have to read one of the other letters to find out what he does. However, his own letter follows:

"I've been feeling of late that the old Class of '16 has been delinquent and finally got around to writing Jim Evans a long sad story about all the people I've met. He'll probably come through with same unless he has already sent it in. I've forgotten when it was written — must be more than a couple of months ago — therefore somewhat aged news. Right now, however, the Tech bunch in Washington has started out to show the capital some class. We're going to have the Musical Clubs here on December 30, and pull off a concert and dance which will be the social event of the season. Nothing less than admirals and generals' wives in the reception line. Why the old Junior Prom will be a barn dance compared with this affair! Wait till our publicity committee gets into action! I expect we'll have to hang the S. R. O. sign out a week ahead or perhaps give an overflow party in the Union Station. Ed Rounds is chairman of said committee and you know it's hard to keep Ed down (as many would-be wrestling champions discovered). I've a soft job — on dance committee — nothing to do but swell around and introduce the gallant youths from the Stute to the aristocrats of Washington. Of course this party is the biggest project before the Club, but we have a weekly luncheon at the University Club with an attendance of from twelve to sixteen men at each session. These meetings are most informal but very pleasant and seem to be growing in popularity."

Jap Carr, VI, writes "As you well know I am married — despite which I have a remarkably 'free' feeling. Children there are none, and stranger yet is the complete absence of dogs. The state of capitvity is pleasant — work quite otherwise, but decreasing in volume at a pleasing rate. Ralph Millis left here last October (1919) for the Engineer School at Camp Humphreys. He is still there, I believe, as a first lieutenant. Ned Hewins I haven't heard from. Bud Kaula went to Australia for the Texas Co. R. S.

Burnap is in Newark, or was last winter, with the General Electric Co. Guy A. Gray is with the National Lamp Works, Cleveland, Ohio.

E. T. (Mac) MacBride was married June 12, 1920, to Miss Dorthea Heald of South Weymouth, Mass. Mac is now president of the Thayer Shoe Co. in some place in New Hampshire. Cary T. Easly, VI, I saw in Hawaii in 1919. He was a first lieutenant in the C. A. C. and stationed at Fort de Russy. Think he intends to stay in the Army. He is married and has one child at least. (No dogs.) I haven't seen anybody for a dog's age, so am short of news. Have already given every bit I know — and most of that old. I am still with the Bethlehem Shipbuilding Corp., but work is slowing up and I expect to make some sort of a change early this winter."

Walt Binger, I, of the firm of Thompson & Binger, 280 Madison Avenue, N. Y., seems to have the most impressive letterhead of the Class, and writes as follows:

"I have recently seen Charles McCarthy and Ralph Millis, both of whom are still in the service. Charley is supervising the construction of the goliath seaplane which he had an important part in designing. Although I have not seen Millis since 1917, I recognized him from the rear at least a block away. Does this astonish any one or do all remember the fit of his clothes and his snappy walk when he was colonel of the cadets? He was in full uniform, plus spurs. Personally, I visited the Institute a few weeks ago for the first time since leaving. Unfortunately, since it was the week before the opening of the term, I missed seeing all the professors at whose offices I left my card. I wish that some of the Boston Highway Option men would correspond with me so that this small crowd, which for the first year of the option was only about twelve men, could keep in closer touch. Many of us would like to hear from Ikey Kleinert and the others. The last time I heard from Al Lieber was just after the Prince of Wales' visit to Panama. Al's work immediately previous to that letter had consisted largely of dancing and riding with the ladies and drinking Jamaica rum. He is therefore very apologetic in this one when he has to state that he has really started to work. 'Since my return here,' he writes, 'I have been working hard, having charge now of the Engineering Operating Base [in addition to his other duties] and played very little at all. I did help make the Prince of Wales' stay a pleasure for him and next week I shall have General Pershing to work on, and it is reported that President Wilson is to make a trip for his health. One might suspect that some one had written a Panama paraphrase to Stephen Leacock's Guide to the Province of Quebec, in the May *Vanity Fair*. The way business in notables is picking up, one might almost make a Senate roll call at the Club Union. I have my own plaintive call that is effective in stalking highballs.' It is quite apparent that Al has talents other than merely professional."

Santa (H. P.) Claussen, II, who is buying cotton cloth for the Bemis Brothers Bag Co. in Boston, in addition to soliciting Tom Little's story of his trip around the world, sent in the following:

"Haven't had very much luck in getting any interesting news for the REVIEW. Most of the 'birds' I called up were out. I talked with George H. Stickney, II, at the United Shoe Machinery Company at Beverly. He is in charge of their foundry. Has a small daughter several months old. George Sutherland, VI, is with Stone & Webster working on general electrical problems, such as design, equipment, specifications, etc. He is apparently one of the few to follow his chosen profession."

Santa is still single, but has been seen figuring on the expense of double harness and seems apt to fall soon.

Tom Little, I, furnishes the following:

"I have recently returned from a fifteen months' trip around the world, undertaken in the interests of my employers, the Bemis Brothers Bag Co., of Boston. About six months of this time were spent in Great Britain, principally in London; five months in India, chiefly in Calcutta; and the balance traveling. The outward journey was accomplished direct by sea from London to Bombay, via the Suez Canal, and thence overland across India to Calcutta. I returned home by way of the Straits and the Pacific to San Francisco; calling en route at Penang, Singapore, Hong Kong, Canton, Moji, Kobe, Kyoto, Yokohama, and Honolulu. My work and studies in India were primarily concerned with the manufacture and merchandising of burlap cloth. Inasmuch as this cloth, both in tonnage and value, stands very nearly at the head of the list of India's exports, some comment on its manufacture and the general conditions under which it is made may be of interest. Burlap, or Hessian cloth, is made from the bast fiber of the

jute plant. Jute is an annual crop in Bengal and adjacent provinces. About three million acres are devoted to its cultivation, and they yield in the neighborhood of nine million bales of about four hundred pounds each. The plant is grown and cultivated, and the fiber separated and assorted by primitive methods, employing only manual and animal labor. No machinery is used with the exception of simple presses for making up the bales.

"In Calcutta I saw a lot of Bill Ogden, '16, II, who is with The Angus Company, Ltd. There are also, in the same company several other Tech men: J. W. Campbell, '17, I; P. N. Rowe, '17, III; M. W. Adams, '18, VI; G. D. Camp, '16, I; G. M. Maverick, '16, X; and F. H. Achard, '13, VI. 'Bill' is doing well, and getting on in good shape, as are I think the others. They all look well, in spite of the warm weather, which, they say, melts down the collars almost as fast as the Junior Prom. They like it and expect to stay. More power to them!

"Penang and Singapore are two of the most beautiful places I have ever seen. The luxuriant tropical vegetation, cocoanut and rubber plantations, and through them the beautiful glimpses of the sea (for each of these places lies on a small island) are sights not soon to be forgotten. Then the people are very picturesque and interesting, being a mixture of Indian, Malayan and Chinese. Both of these places present a flourishing and prosperous appearance, fine buildings and good roads, numerous automobiles, good shops and rich agriculture. The British government certainly appears to be most successful in its administration of these colonies. Japan was also fascinating but I struck there a little too early in the season. The tiny gardens and ancient temples, most artistically laid out and decorated, are exceptionally picturesque. Honolulu is surely a garden spot, but there we had our first introduction to 'prohibition' since leaving home. It came as quite a severe shock, but we managed to weather it.

"Well, traveling is great, but getting home again is greater. I cannot describe the sensation I felt when the hills of San Francisco appeared above the horizon, but it was altogether pleasant. If you don't believe me, go and try it for yourself."

Dodie Dunn, VI, writes: "We'll vote you get the reinforced concrete derby on that 'self-appointed secretaries' stuff. Seriously though, it's great dope that you fellows have gone out after the Class news.

"I have been married now over three years and had about given up hope of ever getting the news through to the bunch. We are pretty definitely settled in Cleveland and expect to be at the above address (3048 Chadbourne Road, Shaker Heights, Cleveland, Ohio) for some time to come, as we have 'beaten the landlord to it' by buying the house. which reminds me that I've become a regular suburbanite now — push a lawn mower 'n everything. When not engaged in this or kindred occupations, I work in the offices of Walker & Weeks, architects. We've got quite a little gang of Tech men there — enough at least to hold their own with the mob from Cornell and Columbia.

"George Kittredge is here in town with the Walsh Construction Co. In spite of this, he dashes around a lot with the local debutantes. We cannot understand how a man with all of George's attractions for the fair sex has remained free so long. If he doesn't watch his foot they'll get him yet.

"Sam Lapham, '16, was here for a while but he has hooked up with a fellow named Simons and the two of them are trying hard to rebuild Charleston, South Carolina. George Spooner (another architect) is married and living in Des Moines."

Bob Wilson, X, sent us all the dope on the chemists. Read it for yourself.

"I was mighty glad to get your letter of October 14 and note that something is really stirring to get some 1916 news into the REVIEW. Here goes with all the information I have, particularly about Course X men. By the way, I suppose you already have a copy of the new *Register of Graduates*, which gives very recent addresses for practically all the men. You can get this by writing the Bursar if you do not have it already.

Berthoud Bolton has recently taken unto himself a wife and is still holding down a responsible job in the Aircraft Service at Dayton. He has written several important articles on the design of aircraft. Theodore Bulifant was in the Chemical Warfare Service during the war and is now with the United States Rubber Co. at Camden, N. J. Elmer S. Freed was with the Nitrogen Fixation crowd during the war, but is now with the Aluminum Company of America at Knoxville, Tenn. Johnny Gore breezed through the office a few months ago wearing the bright-colored insignia of the Third Army. He was in a gas and flame regiment during the latter part of the war. Gruber is still with Merck

& Co. in New York. He can frequently be seen at the Chemists' Club and looks very prosperous. Ed Hale was also married quite recently and is still with the Liquid Carbonic Co., with headquarters at Chicago. R. G. Knowland and W. H. McAdams are members of the illustrious firm of chemical engineers which tries to stagger along under the name of 'Lewis, Greene, McAdams & Knowland.' They all seem to have plenty to do and will undoubtedly rival Stone & Webster before many years have passed. Knowland is the proud father of a son born about the first of the month. Bill Leach was one of the last to escape from the clutches of the Chemical Warfare Service, where he served as captain at Edgewood Arsenal. He has recently gone with the Mathieson Alkali Company at Niagara Falls. Art Neave is with the Ault & Weiborg Co., ink manufacturers, near Cincinnati, Ohio. E. C. Pitman has charge of some research work on cellulose nitrate films for the du Pont Co. Milton Schur is working in George Richter's laboratory at the Brown Co., Berlin, N. H. Wilfred Wylde was one of the first to be commissioned in the Field Training Corps of the Chemical Warfare Service and was in France for a considerable part of the war. He is now with the Eastern Manufacturing Co. at Bangor, Maine. He is also teaching a course in paper making at the University of Maine. Laurin Zilliacus is, I believe, head master of a boys' school in Bedales, Petersfield, Hampshire, England. Bob Wilson (ahem!) was a major in charge of some chemical warfare research during the war and is now director of the Research Laboratory of Applied Chemistry, at the Stute. He has also managed in some way to acquire the title of Associate Professor of Chemical Engineering, although rumor has it that he does mighty little teaching."

Dick Ahearn, I, is with the Aberthaw Construction Co. at Atlanta, Ga. — is unmarried and says he has just had an announcement of the wedding of Frank Bucknam, I, to Miss Maude Phelps. "Buck" is with the Mutual Factory Fire Insurance Co. in Boston.

Murray Horwood, VII, whom we knew as Horowitz, has like Berke, disguised his name so that we don't recognize him. He is with the Stute as Instructor in Course VII. He is also giving courses at Boston University Medical School and was for a while invading the sacred halls of Wellesley to carry knowledge to the charming students. In addition to these activities he has conducted public health surveys of numerous Oklahoma cities. He was married December 25, 1919, to Miss Louise van Valkenburgh Peirce, a former student in Course VII.

Tom Berrigan, XI, with his usual mathematical precision, checked us up as follows:

"I read that 'picked few' stuff of yours and Rusty's and thought it well to check it up. I asked Kemp if he got the same line. He said 'no'. 'Well have you been home lately, Kemp?' I asked. He piked away on business and I felt he tried to evade me — so I have some doubt in my mind about the 'picked few' dope. I am glad to help you out, Chuck, on this dope so here goes:

Thomas A. Berrigan, single, at present a designing engineer with Lockwood, Greene & Co. Have had charge of the Lancaster Mills, Clinton, Mass., and Saco-Lowell Machine Shop at Biddeford, Maine. Emery S. Kemp, married, two kids, Class baby doing well. (Kemp wonders what the chances are of the Class giving him his first suit of long pants.) I told him you and Rusty spent the last $7.98 we had and he seemed rather downhearted. Kemp is a textile machinery layout man for Lockwood, Greene & Co. Jack Hickey is still single and prosperous. Jack says the wholesale meat business is more remunerative than engineering. Yesterday he told me he bought a new Buick coupé. He is a member of the firm of Clark & Hickey, 98 North Street, Boston."

Walt Reed, XI, seems to question the veracity of the circular letter:

"Your letter of October 14, 1920, concerning 'Tech, 1916 — Let's Go', and all that stuff is at hand. By dividing $7.98 by two and then making a liberal allowance for stationery, a little mathematics shows that about three hundred letters can be sent out to men of the Class of 1916, so you never can get by with that 'picked few' stuff. Nevertheless, I appreciate the honor of this inquiry and shall try to do the best I can. You seem to be inquiring particularly for 'personal dope,' which in my case, is very simple and easy to relate in a few words. Unlike the majority of the Class, I am still as free as a chipmunk, have one dog, no children and am working for Whitney Brothers, in Boston.

"You undoubtedly remember Charles Reed, and it might interest you to know that a short time ago, I helped him pack up some furniture for shipment to Washington, D. C., where he is about to set up housekeeping on his own hook. I have seen very few of the old 1916 men recently, so this is about all the dope that I can give you at this time about

them. I did, however, run across Dipe Lobdell the other day down in the South Station lunch room where he seemed to be making a strong effort to put on even more fat."

Cy Guething's offering was the following:

"Intended answering your letter the same evening it was received, but like lots of other things 'it slipped.' However, I was reminded today when Hen Shepard 'blew in' in his flivver, coming out of his way one hundred miles to remind me to be sure and let you know another of the Class is alive. Many must have thought this doubtful after hearing that I spent a couple of years in the Fighting Ordnance. This is the second time Hen has blown in, the first time meeting me by accident, while endeavoring to sell one of his trucks. The next visit he promises to take lunch with us — yes, I mean us. I not only got a degree in 1916, but spent a little time that year at 102 The Fenway, looking them over, as Rusty would say. Married the diamond of the Club and we have a twenty months old son running around the house. And right here let me state that the cheapest meal in this vicinity for any of the 1916 crowd who may be passing through may be obtained by dropping in at the John T. Boyd Company's plant here in Williamstown. And here's a good one. If you drop in during the afternoon, can take you up to the Faculty Club for tea. Yes, it's the honest to gospel truth. I'm a member, but not on the faculty of Williams College. Now a word about Jim Evans. Was much present at his wedding and the ceremony had to be delayed to wait for Jim to change his clothes after a late afternoon's game on the links. Since being married he is forgetting even his best friends and that he is supposed to be an active member of the good Class of 1916. Hope that all members of the Class in an engineering capacity have induced their employers to join the M. I. T., Division of Industrial Co-operation and Research, as this is a benefit to each of us as well as a boost for the Stute. Am enclosing a couple more seeds to go toward the Class campaign.

Receipt of Cy's check for two bucks is acknowledged — it will be held pending some definite action on the Class secretaryship. The authors of all this dope had $8.25 belonging to the Class left over from the money received from Jim Evans last fall when the present activity started. So far $4.90 has been expended, so that the available funds are now $5.35, thanks to Cy's check."

Nat Warshaw, II, writes:

"I hope I am not the only one to answer the plea of the $7.98, and I feel like the 'bird' who said, 'There's nothing new in Boston 'ceptin' old Tige is dead' — follows a long story of 'how come' Tige to be dead! Yes, there's nothing happened to me since the grand and glorious day we wrung' from the 'Stute our hard-won sheepskins. Of course, shortly thereafter, Old Man Mars got busy and yelled for me to help him, so I left the 'mufti' as our friends across the sea would say and tried to help. Was working for the Bemis Brothers Bag Co. in Indianapolis at the time, entered Fort Benjamin Harrison Training Camp, got lonesome for the ocean, was transferred to Fort Munroe — Old Point Comfort, *they* called it — but I didn't, and got my commission as second lewie in the first camp. There were several fellows from Tech there at the time but I only met a very few. They all graduated, you bet! Transferred to Fort Banks, Coast Defense of Boston, helped organize and train the 55th Artillery (C. A. C.), sailed for La Belle, France, in March, but landed in England. Ten days with the 'Zimys'! Then Le Havre and german measles and a lonesome time in the hospital! From then on a personally conducted tour of France from Le Havre to the Marne, the Vesle to Brest, participating in the second battle of the Marne and the entire Meuse-Argonne offensive on the way. I had a gorgeous time. You know our regiment was motorized and equipped with the wonderful 155 mm. grande Porte Fillouxs — however, I always had a horse as my private mount and even General Pershing to this day is wondering how I got away with it! — also the whole regiment. 'Them were the happy days!' Returned to New York, January, 1919, and was mustered out 'toute de suite,' February 18, 1919, was almost as grand a day as commencement, for once more I was free and didn't I have my little old discharge paper to prove it! Then began the period of getting acquainted with high prices and the H. C. L. Since then nothing much has happened to me and at present I am at home to any one who desires to call — as chief engineer of the Murray & Treguitha Corp., Atlantic, Mass., manufacturers of high-grade internal combustion engines.

"By the way, I attended the wedding of George Waymouth late in the summer. He went right back to Porto Rico, where he is doing fine, making lots of money out of sugar

and acting as chief engineer, general manager, etc., for his company. I'm waiting for a letter from him, but being newly wed I imagine he hasn't much time."

Jack Heller, II, came through with this: "Yes, I'm married — captured April 18, 1914. Haven't any dogs as yet, but have three other little things to run around and muss up the house. One female, one male, and one female, in the order named; ages from five down, in two-year steps. I'm peddling stuff for the Montana Electric Co., and only get home every two weeks.

"Ralph Fletcher, I, passed through Helena and roused me out of a sound sleep about 10 A.M. one Sunday last summer. He couldn't stop off, but did phone from the station — depot, as we call them here — Shades of Arlo Bates!

"Family has gone to California for the winter, so address me at the Northern Hotel, Billings, Montana."

Ned Hewins described his life as follows:

"Last February I had developed a severe cold and cough which the doctor thought sufficiently suspicious to warrant an X-ray. T. B. was reported to have started and I was ordered to take a vacation in Florida. So I spent the rest of the winter in the land of sand, swamps and snakes and sunshine, and then went north for the summer. While north I had another X-ray taken and was also examined by an expert. Neither of these gentlemen could find any squeaks in my lungs or spots, and concluded that the first guy must have photographed my buttons or something. So I am now back at work in the engineering department of the Newport News Shipbuilding and Dry Dock Co.

"My latest diversion consisted of serving for the first time in my life on a criminal jury, and if you could read the accounts of one of our decisions in the daily papers you would have thought we were the criminals. Twelve certain jurors got a taste of what men in public life must be undergoing all the time, unjust criticism from damfool newspaper editors. You know how much hell newspaper editors can raise over nothing, particularly college paper editors.

"I regret that I have no gossip to submit. Living down here is like living on another planet as far as seeing or hearing anything of other Tech men."

Hen Shepard, II, is touring the Connecticut Valley in a Ford, selling "Jacklift" trucks, and besides stirring up several other 1916 men to send in news, supplied us with some himself: "Herb Gfroerer, II, and I have a cozy little apartment at 548 Orange Street, New Haven, and live quite comfortably. Herb is assistant general superintendent at Sargent Co. Jeff Robinson lives just across the street and is process engineer on fishing reels at Winchester Arms Co. Just now business is very slow but we are hoping for the best later on. I cover about two thousand miles a month in my car, so you can see I manage to keep out of mischief. Acted as usher for old Paul Buxton's wedding about a month ago. Paul sure is a winner, and is now living in Torrington, Conn. 'Sol' Makepeace, II, has just announced his engagement to Miss Constance Nightingale of Providence, R. I. 'Santa' Claussen, II isn't engaged, but ought to be."

Ed. Hanford, XIII, left the service of the United States Shipping Board in May, and is now connected with the Electric Boat Company in New London, Conn., in the designing and estimating end. The company is doing all of the designing for the Submarine Boat Corporation and for the New London Ship and Engine Company.

Howard M. Smith, Jr. is also with the Electric Boat Company in New London, Conn. — Jim Ralston is associated with an automobile parts company in Yonkers, N. Y. in production work. — George Repetti is sales manager for the New York district for the Dorr Co., manufacturers of mining machinery. — Emil Landres is assistant superintendent of the United Piece Dye Works in Paterson, New Jersey. He married une demoiselle Francaise last year. — "Dutch" Gaus, recently married, is a sales engineer with the American Well Works, New York City. — "Monty" Lovejoy is learning the fire insurance business from the inspection end in New York City. — Don Webster has left the United States Rubber Export Company, and is now with W. B. Richards and Company, Industrial Engineers and Accountants, 71 Broadway, New York City.

Merrick Monroe is in the New York office of the Pittsburgh-Des Moines Steel Company of Pittsburgh, as a contracting engineer. From June, 1916, to November, 1916, he was a transitman employed by the Cumberland County Power and Light Company of Portland, Maine. From November, 1916 until September, 1917 he was with the company with which he is at present connected, as a draftsman and as an estimator and designer in the Pittsburgh office. In the fall of 1918 he attended the Engineer Officers Training

School at Camp Humphreys, Virginia. — Tom McSweeney is in the contracting business in Boston for himself, with an office at 220 Devonshire Street. — Ed Clarkson is in an automobile business in Boston with Paul Leonard, "Lobby" Lobdell, and John DeBell.— Edgar F. Hanford's address is Young Men's Christian Association, New London, Connecticut.

So much for the Class gossip. Now how about the next issue? If all of you who read this, and who have not written indirectly, will sit down and do it now, we will have another real batch of news for the next issue. Don't let that "picked few" stuff in the first circular worry you, it was only an attempt to kid the boys to whom we wrote into answering. Obviously we couldn't tackle the whole crowd, and if you were not included, why get even with us by writing us now. Let's make the 1916 column a live affair.

1917

From the Home Office, Room 3-208, M. I. T.

Word has been received from Dick Lyons, III, who says in a letter to Professor Locke as follows:

"I sailed from New York on July 7, and after eleven days landed at Maracaibo. We touched at Porto Rico, La Guayra, and Curacao on the way. The trip was very pleasant and interesting. I am working for the Maracaibo Oil Exploration Corporation of New York. We are examining the Maracaibo Lake Basin and adjacent territory, in which there is already oil production. In the two months which I have been here I have seeen much of the country. An especially interesting trip was to the south end of Lake Maracaibo and up the Rio Santa Ana, into the Motilones Indian country. The tropical scenery there is beautiful, but at the same time offers a few difficulties to ordinary engineering work. For example, in going through the jungle it is necessary to cut a passage called a "pica" out of the interlaced vegetation. It was even necessary in one place in the jungle to light a match at high noon in order to read the transit."

Dick Catlett, X, has made another change and is now with the Lewis Recovery Corporation along with Johnnie Holton. Dick is located at 68 Devonshire Street, Boston, Mass. Ken Bell, X, is also helping to swell the payroll of said corporation and has lately been particularly interested in the new Dunlop Plant at Buffalo.

Speaking of rubber, R. A. Maeder, II, is said to be with Goodyear, and as far as we know has not denied it.

Steve Mason, IV, is with Stone & Webster, as is also W. J. Ahearn, II.

J. Worthen Proctor, II, who has been with the Unit Railway Car Company, manufacturing steam railway cars for Gray & Davis, was recently commissioned as a first lieutenant, Ordnance Department, Regular Army, and after spending a few days at Watertown Arsenal was ordered to Camp Dix, New Jersey, to command the Sixth Mobile Ordnance Repair Shop.

Biel Clark, I, has left Lockwood Greene & Co., and is now with J. F. Ancona, '02, Consulting Engineer in Rochester, N. Y.

The above constitutes the news of the past quarter which has come to our attention, and it now becomes necessary to trot out the usual line of those who have fallen and are no more in a position to fully enter into the future festivities of Class celebrations. Prominent among these comes the announcement that Captain Arthur Raymond Brooks, Air Service, U. S. A., was married on Saturday, September 25 last, to Miss Ruth Marie Connery in St. Mary's Church, San Antonio, Texas. We also hear that Ray is to stay in the Army and that after October 20, he and Mrs. Brooks will be at home at Kelly Field, San Antonio, Texas, where he is commanding the 95th Pursuit Squadron.

Ray Stevens was married on Saturday, September 4, to Miss Katherine Andrews of Nashua, New Hampshire.

As we prophesied in our last issue Captain Frank Bowman Hastie, Engineer Corps, U. S. A, was married on Tuesday, August 3, in the Galilee Chapel, Virginia Beach, Virginia, to Miss Cecile Amelie de Witt, daughter of Colonel and Mrs. de Witt.

We have also received a choice collection of newspaper clippings, etc., during the

last several months, and these we print after judiciously editing the same in order to spare the feelings of the victims.

From the *Boston Herald* of July 4, we note the following about Eddie Rounds, II.

"Mr. and Mrs. Philip Eberhardt of 248 Gray Street, Arlington, announce the marriage of their daughter Miss Eunice S. Eberhardt, Radcliffe College, Class of 1920, to Lt. Edward W. Rounds of the aviation department of the United States naval reserve force at Washington, D. C."

The Globe of September 22 has the following about Horatio Nelson Keene, XV:

"Miss Edith Rich, daughter of Mrs. Emma Young Rich, and the late Frank B. Rich of 9 Everett Street, Hyde Park, was married last evening to Horatio Nelson Keene, son of Mr. and Mrs. Albert Keene of 1074 River Street, Hyde Park. The bride is a graduate of the Massachusetts Normal School, Class '18. The groom, who served in the world war as master chemical engineer, is a graduate of the Institute of Technology, Class of 1917. After an extended honeymoon trip through the New England States, Mr. and Mrs. Keene will reside in Dedham, and will be home after November 1."

From the *Washington Times*, September 16, we note that Eddie Goldstein has stepped off:

"The marriage of Miss Ruth Frances Allen, daughter of Mr. and Mrs. Harlan C. Allen, to Mr. Edwin J. Goldstein, son of Mr. and Mrs. Henry Goldstein of Hartford, Conn., took place yesterday at noon in the home of the bride's parents. Mr. and Mrs. Goldstein left later for a wedding trip to Florida. The bridegroom is a graduate of Massachusetts Institute of Technology, and the bride is a graduate of the George Washington University."

And this from the *Brooklyn Eagle* of October 10, about Dean Parker:

"In St. George's Church, Flushing, L. I., last evening Miss Anna Burnett became the bride of Dean Huntington Parker of this borough. Miss Burnett was graduated with high honors from Wells College, in June this year. She has been very active in welfare work since her return home, and is connected with the Young Women's Christian Association. Mr. Parker was in the Class of 1917 at the Massachusetts Institute of Technology, and since that time has been associated with the du Pont Manufacturing Company at Gibbstown, N. J."

Ten days later in the *Brooklyn Eagle* the following appeared concerning Gus Gaus:

"A bride of Saturday morning was Miss Dorothea G. Scarborough, whose wedding to Gilbert Herman Gaus took place at the home of her parents, Mr. and Mrs. Andrew J. Scarborough. Miss Scarborough is a member of Phi Beta Sigma sorority. Mr. Gaus, who is the son of Mr. and Mrs. J. H. Gaus of 12 Jefferson Avenue, was graduated from Boston Tech and is a member of Sigma Phi fraternity."

Although most of the '17 men around Boston know of this, it will probably be news to some of the more distant members. It is from the *Boston Herald* of September 12.

"Announcement is made of the wedding last evening in the Congregational Church in Williamsburg of Miss Vera M. Thresher, Smith '18, daughter of Mr. and Mrs. G. A. Thresher, to Mr. Kenneth E. Bell, Massachusetts Institute of Technology '17, son of Mr. and Mrs. A. M. Bell of Malden. Mr. Bell and his bride will live in Lexington."

The *Army and Navy Journal* of July 24 notes the following:

"Col. B. C. Morse, Inf. U. S. A., and Mrs. Morse announce the engagement of their daughter, Jessie Jane, to Mr. Edward Heyward Raymond, of Boston, Mass. Mr. Raymond is a graduate of the Massachusetts Institute of Technology, Class of 1917, and served as captain in the Coast Artillery Corps during the world war. He resigned from the service and is associated with the Housing Company of Boston. The wedding will take place in the late fall." Raymond came back from Panama in time for the Class reunion at the Country Club last June, but said nothing concerning the above.

Speaking of Panama, W. H. Seymour, II, dropped into the Home Office recently, being in the States for a short leave. He was not decided as to whether he would go back to Panama at the end of this leave or resign and enter civil life, although he fully expects to go to the tropics in either case. Through him news was obtained as to Bob DeMerritt, I, who is at Fort Amador, and several other Tech men of other classes who are working on the Canal.

As to the future prospects, the *Transcript* of September 28, prints the following about Dusty Cronin, IV.

"Fire Commissioner John R. Murphy and Mrs. Murphy announce the engagement

of their daughter Janet Smiley Murphy to John T. Cronin, son of Mr. and Mrs. James Cronin of Spokane, Wash. Miss Murphy is a graduate of Simmons College, where she received a Bachelor of Science degree, and during the war was a technician in the Peter Bent Brigham Hospital. Mr. Cronin is a graduate of Gonzaga University, Spokane, Wash., and of the architectural department of the Massachusetts Institute of Technology, Class of 1917. He is a member of the Chi Phi fraternity. During the war he was an instructor in the Army School at Tech and later was connected with the Bureau of Aircraft Production in Washington. At present Mr. Cronin is with a local firm of architects."

The *Evening Journal* of New York City, September 14, contains the announcement of the engagement of Mrs. Ernest A. Bigelow, Jr., to Herman Livingston Rogers, I.

Joe Gardner, IV, who was a captain C. A. C. during the war and will be remembered as the feature of several Tech Shows, has given up architecture to follow the stage. He is now retained by Morris Gest and plays the part of a slave boy in "Mecca," which Morrie is staging at the Century Theatre in New York. Patronize McBride's Agency for tickets.—Adv.

Ed Tuttle, II, who finally got his degree on condition that he would stay away from the Institute for a while, is Assistant to H. V. Coes, '06, who is industrial engineer for Ford, Bacon & Davis of New York City. He is at the present date of writing spending his time in Springfield, Mass., on valuation and appraisal work.

Frank Conaty dropped into the Home Office from Camp Grant several days ago, leaving his personal greetings and those of the family to us. His regiment, the 3d Field Artillery, may soon be ordered to Honolulu. He really came east in order to arrange a course for Frank Jr., who expects to enter in the Class of 1955 minus 17.

The *Newark Call* gives us the following information concerning social events held in the citrus section of New Jersey on the evening of October 23.

"The home of Mr. and Mrs. John Henry Stevens of Kingman Road, South Orange, was redolent of autumn last night at the wedding of their daughter Miss May Winona Stevens, and Paul Coolidge Leonard, son of Mr. and Mrs. John Leonard of New Bedford, Mass. Autumn flowers and foliage, southern smilax, palms and ferns were employed in the decoration of the house, with yellow chrysanthemums predominating. The ceremony was performed at 8.30 o'clock by the Rev. George Crocker Gibbs of New Bedford, Mass., a cousin of the bridegroom.

"Jerome Leonard of New York served his brother as best man. Following the wedding trip on which they left in a hurry in a Ford, Mr. and Mrs. Leonard will make their home in Cambridge, Mass. The bride was graduated last June from Wellesley College. Among those present were: L. L. McGrady of Fall River, Edward H. Clarkson, John M. DeBell. and H. E. Lobdell of Boston; George McCarten and George Fleming of Palmerton, Pa,; and E. P. Brooks of Broadway who were college acquaintances of Mr. Leonard who was graduated from the Massachusetts Institute of Technology, Class of 1917. The editor of *The Call* has been duly notified by the 1917 Home Office, of the erroneous impression created by the last sentence of this article.

Phil Rowe, who is building up Bemis Bag big business in Calcutta, writes from the original land of hooch as follows:

"It sure does make me feel homesick to think of the crowd back in Boston and the outing at Ed Tuttle's place. However, I hope to pay you a visit before the year 1922 has passed. Please convey my regards to any of the boys who happen in."

Bill Gray, III, now occupies Box 158, Bigheart, Okla., and enjoys his work immensely because it reminds him so much of the final phases of the Meuse-Argonne:

"This is a great country to save money. I am working on the agitators, not I. W. W.'s, and work nine hours per day, seven days a week. At present my hours are 5 P.M. to 2 A.M., but shift again the first of next month. I have discovered that it is impossible to pump oil through a closed valve; and to fill up a tank, the valve at the bottom must be closed."

Bill goes on to describe how, after the daily murder, the whole town turns out with heavy artillery to catch the criminal. "Billy's brother (Billy is the sheriff) is night watchman at the refinery and is full of heifer chips. He can cuss steadily for an hour and a half without using the same word twice. I don't think he has ever had a bath, haircut, or shave, but that doesn't worry him any."

Our special "Foreign News" number will appear in the near future and next summer we hope to publish a "Class Baby Supplement."

1918

DAVID M. MACFARLAND, *Secretary*, 6263 High Street, West Chester, Pa.

No report has been received from the secretary.

The Boston *Transcript* of September 28 published the following:

"Mr. and Mrs. William F. Bartholomew of West Newton announced today the engagement of their daughter, Maybelle, to Horace Moss Guilbert, II, of Dayton, Ohio. Miss Bartholomew is a graduate of Vassar, Class of 1919. Mr. Guilbert is the son of Mrs. Edmund Guilbert of Boston. He was graduated from Yale in 1914 and was a member of the Class of 1918 at the Massachusetts Institute of Technology. During the recent war he served for two years in the Ninety-first Aero Squadron."

From the *Dispatch*, Pittsburgh, Pa.:

"The wedding of Miss Mildred Hutchinson Killen, daughter of Mr. and Mrs. Frank Bissel Killen of the Northside, and William Hugh Turner, III, son of Mrs. Florence B. Turner of Boston, Mass., took place last night at eight o'clock in the Episcopal Church of the Ascension, the Rev. Floyd W. Tomkins, Jr., officiating."

From the Boston *Transcript* of September 23:

"Karl Herman Kaiser of 18 Haviland Street was accidentally killed at the Merrimac Chemical Company's plant in Everett on Tuesday afternoon. He was the son of the late Dr. Rudolph C. Kaiser and Mary L. Osgod Kaiser. He was born in Onondaga Valley, N. Y., June 17, 1896. His mother was of Pilgrim stock of New England. The son was a graduate of the Massachusetts Institute of Technology, Class of 1918. On December 2, 1917, he enlisted in the Aviation Division of the Naval Service, and received a commission as ensign. During the war he served as inspector in the manufacture of aeroplanes at Buffalo, N. Y., and Akron, Ohio. He was discharged in October of 1919.

Since that time Mr. Kaiser had been employed as resident engineer by Monks & Johnson of this city. While at the Massachusetts Institute of Technology he was a member of the Architectural Club and of the Lambda Chi Alpha. He was also a member of St. John's Lodge of Masons, and belonged to Grove Hall Universalist Church.

1919

EUGENE R. SMOLEY, *Secretary*, Technology Club, New York, N. Y.

November 20 has been set for a dinner of 1919 men in New York City. The details of said get-together not having been co-ordinated at the time this news is penned, any one desiring to avail himself of a real live evening of wine, food and song, drop the secretary a line or meet at the Technology Club at 6.30 P.M. of the above date. The dinner will probably commence an hour later at some Rio de Janeiro hash house. We are hoping to have Dr. George Gibbs of Parisian fame as an honored guest. We plan also to hear a few remarks from Vice-Consul Charles Drew, Jr., formerly of Belgium, now representing this country in the country of the dikes and wooden shoes, who is cattle boating himself over for this particular occasion.

Chester Stewart came over from Sweden several weeks ago and is now resting at 6 Sumner Avenue, Medford 55, Mass., perhaps jotting down all he can remember, so that his tale of experiences on this memorable night will flow as gently as the wines did in "the New York that used to be." Dave Sanford will drop his new design of a marble platinum-inlaid bed factory in Jersey City, will shake off his Greenwich Village bonds for the evening. Don Way, our versatile ex-officio, will cancel his hand ball engagement. Fred Barney, the executive of the Union Carbide Company of America, says he will cancel his important business engagement, although he will probably lose out on a hundred thousand dollar deal. Charles Parsons is now practicing up some snappy executions of how the latest ought to be rendered. Ask him to sing, "The English Language is called the Mother Tongue Because Father Never gets a Chance to use it." Larry Dalton is coming all the way from Philadelphia, sacrificing a whole day of golf on Sunday. He plays rain or shine, ice or snow, with or without, mostly with. I don't see the sport in golf there used to be since the golf architects eradicated the nineteenth hole. If the trains still run out of Palmerton, Pa., there's Doc Flynn, Monty Montgomery, George Grimes Fleming, our noted

playwright, George McCarten, now running a lithopone plant in the wilds of Pennsylvania, Burly Burbank, Dan Hall, and R. F. Lewis, who after marrying a Wellesley girl has settled down with the New Jersey Zinc Co., all of whom should help make an impression in the edibles after years of training on the famous Pennsylvania Dutch cooking we've all read about.

C. Travers managed to tear himself away from his automobile parts in the Continental Body Co. of Garden City, L. I., to pay us a friendly visit at the Tech Club one September day and he promises to be on hand at our feast. — F. O. Wyse dropped in from Boston where he is with the Blanchard Machine Co., high-power vertical surface grinders, 64 State Street, Cambridge, Mass. He breakfasted several mornings with the secretary at the National Arts Club, several doors from our Tech Club. Wyse spent part of his vacation in Canada, and as he is quite there on the manipulation of a trick German camera he had many interesting snapshots to show. We are hot on the trail of a stereopticon machine and if we can have one delivered before the night of November 20, we will be entertained by an illustrated talk on Canada.

Paul Sheeline dropped into the Tech Club on October 13, being in town for A. D. Little, Inc., of Cambridge, Mass. He sends in the following letter: "Packy Johnston, née Norwood P. Johnston, has just returned from South America and was recently seen in Boston much the worse for wear. Webb Shippey is still out in Chicago and has not returned to Tech. John Stevens, III, is still sitting on his tail at A. D. Little's holding down the paper end of the game. I'm holding the P. and P. Department to the mat."

He also says that Guy Davis is now the proud possessor of two daughters.

Ev Doten, 219 Webster Avenue, Muskegon, Michigan, writes in from the midwest:

"Karl Nutter, II, vacationed in Canada. He expects to be down south again, attending textile expositions, installation work of their textile machinery and incidentally sightseeing in 'Zose Sozern town.' Larry Dalton is still with the Link-Belt Co. at their plant in Philadelphia, working on the design of machinery for the handling of abrasives. I'm still in the cam shaft game, even though the automobile industry has slowed up a bit."

Arthur E. Wales is with the Wales Motor Co., Bridgeport, manufacturing trucks. Offices at 961 Commonwealth Avenue, Boston.

Word reached the secretary from E. W. Hill's folks that although he is still in Germany, his permanent address has been changed from Norwich, Conn., to Ross, Marin County, Calif.

The *New York Times* printed the following in reference to the marriage of R. F. Morrison:

"Miss Rosalind Hazelton, daughter of Mr. and Mrs. Benjamin Franklin Hazelton of this city, and Robert F. Morrison, son of Mr. and Mrs. Edwin J. Morrison of Yonkers, N. Y., were married at Felbridge Church, Felbridge, Surrey, England, on August 3, according to an announcement received here. The ceremony was performed by the Rev. B. W. Clinch. Mr. Morrison after three years at Dartmouth, transferred to the Massachusetts Institute of Technology and was graduated from the department of engineering there."

The *Oregonian*, a news organ of Portland, Oregon, saw fit to print the following item referring to I. Maizlish:

"Departments at Reed College continue to be strengthened. Closely following the announcement of Dr. L. E. Griffin's election as biology head comes word that I. Maizlish has been appointed instructor in physics under Dr. A. A. Knowlton, who holds the physics chair at Reed. Mr. Maizlish is a graduate of the Massachusetts Institute of Technology and he received his master's degree there in 1919. He was an instructor at the University of Iowa last year.— Charles T. Parsons has entered the columns of the *Electrical Review* published in Chicago. "Charles Jewett Parsons has been added to the sales staff of the Celite Products Co. of New York City. Mr. Parsons is a graduate of Massachusetts Institute of Technology and specializes in power-plant work." This also appeared in *The Tech, Iron Age*, and many other illustrious publications. Class to Charlie!

Ellsworth G. D. Paterson, VIA, received the following write-up in the Boston *Evening Transcript* of August 5.

"An engagement just announced is that of Miss Ethelind A. Munroe, daughter of Mrs. Ethel B. Munroe of Cambridge, who has a summer home at New Hampton, N. H., to Ellsworth G. D. Paterson, of New York, son of Mr. and Mrs. George W. Paterson of Melrose Highlands. Miss Munroe's late father was Oliver B. Munroe, who was mayor

of Melrose, in which city the family home formerly was at 22 Howard Street. Mr. Paterson is a graduate of the Massachusetts Institute of Technology, and is a specification engineer with the Western Electric Company of New York City."

The following official notice arrived. Robert is now with the New Jersey Zinc Co. at Palmerton, Pa. "Mr. and Mrs. Louis Courtland Iagger announce the marriage of their daughter Mildred Courtland to Mr. Robert Fairn Lewis on Thursday, June 10, 1920, Jamestown, N. Y." Although Mr. Lewis has just graduated, he is officially classified with the Class of 1919.

H. H. McClintic, although unheard from or of, is assumedly buried in the steel mills at Pittsburgh, Pa. David Sanford is with J. T. Rowland, Jr., Jersey City, responsible for the actions of a ruling pen over an architectural board. He can't be responsible for much after hours in the environs of Greenwich Village, where he is living.

Bal, née Marshall, Balfour, noted for his agility at trailing the elusive microbe, sent in a very interesting letter from his headquarters in Switzerland, League of Red Cross Societies at Geneva. Bal is very enthusiastic about Switzerland and if Article 1 of the Constitution concerning birth in said country could be eradicated, we might some day have hailed Bal as the president of the Swiss Republic. However, at present he is busy expressing his thoughts in the League's *International Journal of Public Health* published in Spanish, Italian, French and English.

Don Way bumped into A. S. Richards, who returned to the Stute after the war to finish his course in electrical engineering. Richards is now with the New York Telephone Co., in the plant department school and is living at 612 West 114 Street, New York City.

Myron Clark finished his course at Cambridge and came to New York for a short stay recently. He is with the Aluminum Company of America, and has left for Tennessee, where he will have to do with the rolling of aluminum.

McCarten, Montgomery and Flynn were seen wandering about the floors of Grand Central Palace at the Chemical Exposition the week ending October 25. Bob Hackett and George Fleming met and recognized each other at the Ziegfeld's Follies this month.

Some of the recent changes in addresses follow: Charles J. Barrios, Rivas, Nicaragua, Central America; Stanton H. Breed, 398 Marlboro Street, Boston, Mass.; Louis A. Brown, Jr., 1516 W. T. Waggoner Building, Fort Worth, Tex.; Charles M. Herrick, I Street, Ward Hill, Mass.; James Holt, 34 Willoughby Street, Somerville, Mass.; Frederick J. Hopkinson, R. R. 16, Dayton, Ohio; Leslie A. Jackson, 929 Eastwood Avenue, Chicago, Ill.; Wee K. Lee, P. O. Box 276, Wellsville, New York; John C. Purves, 8525 Seminole Avenue, Philadelphia, Pa.; John W. Rogers, 144 South College Street, Washington, Pa.; Leighton B. Smith, 488 Centre Street, Newton, Mass.; Chester C. Stewart, 6 Sumner Avenue, Medford 55, Mass.; Arklay S. Richards, 612 West 114 Street, New York City; David Sanford, 305 Fourth Street, New York City; Frederick Barney, 17 Gramercy Park, New York City; George McCarten, Horse Head Inn, Palmerton, Pa.

1920

KENNETH F. AKERS, *Secretary*, 54 Dwight Street, Brookline, Mass.

This is your secretary's first report for the REVIEW and it is going to be in the form of an informal chat with you all. This number of the REVIEW is to be sent to you all free but next time you must all have your subscription in, because it is through the REVIEW that the Class will hear of each other; it is the big link that is to hold us together as an alumni organization. Every loyal 1920 man must be a member of the Alumni Association and through that a subscriber to the REVIEW. There is the dope, don't fail to conform to it.

This publication comes out four times a year and that means you all must write in to me just that same number of times, namely before the middle of the following months, December, March, June, and October.

Plans for a Class dinner in Boston Christmas week are to be made and you will hear of it through the mails. Let every man who can, turn out for the occasion. Now to give you some news of the gang.

Karl Bean is with the Associated Factory Mutual Fire Insurance Companies in

Boston. — Ted Hobson is with his father in the plumbing business in Lowell, Mass. — Al Frazer is one of our number who is still at the good old Stute and says he is "one among many of our classmates." We believe you Al. — Henry Massey, after working for the Aberthaw Construction Company for a couple of months, is now in the Harvard Graduate School of Business Administration. How he has fallen!

George Rowe is with the Hartford Fairmont Co. engaged in the manufacture of automatic glass machinery. — Al Glassett is with James H. Fuertes, a consulting engineer of New York. — Elbridge Wason is with C. L. Hanthaway & Sons, manufacturers of show waxes, cements, stains and blackings. — John Logan is studying in an apprentice school of the Pennsylvania System and is learning the electrification of railroads. — Maj. R. W. Case is in command of the Raritan Arsenal at Metuchen, N. J. — Bobby Sumwalt is working in Augusta, Georgia, constructing a base hospital at Camp Hancock for insane soldiers. — Chuck Reed has risen to the ranks of an instructor in course XV at the Institute. — Samuel Ruttenberg is working for the Independent Lamp and Wire Co. of New Jersey and living in Brooklyn. — Bob Tirrell is working for the Lewis Recovery Corp. in Boston as a mechanical engineer in their construction department. — H. H. Blau is in the production department of the Macbeth-Evans Glass Co., Pittsburg, Pa. — Ike Newton is in the wool business in Boston. — Phil Rust is employed as a research chemist by the Essex Analine Works, Inc., of South Middleton, Mass., making dyes. — Bill Meissner is a "pencil pusher" with P. Pennington, an architect in New York.

Franklin Hunt is with the Liquid Carbonic Co. in their Chicago plant, studying their production system. — Phil Brown is working for the Hartford Fire Insurance Company as one of their inspection engineers. — Edwin Rich is in New York City working as plant engineer for the New York Telephone Company in the North Manhatten district. Tommy Orchard is working for the High Grade Lamp Company, learning the lamp business in Salem, Mass. — Elliott Perkins is with the New England Telephone and Telegraph Company in New Bedford, Mass., working in the engineering department. — Count Dumas is up in the province of Quebec, holding down the job of Professor of Chemistry in the Three Rivers Technical School. Important — the town isn't dry!

Austin Higgins, to begin with, was married August 21, 1919, to Miss Mary Rynders of Atlanta, New York. He is now working with the Horatio Kelsey Company of that town. — Fred Travers has been away from school for two years and is now registered with the Class of 1923. — Rus Hemeon is back to the Stute officially with the Class of 1921 but spiritually with the Class of 1920. — Bob Patterson is in the process of looking up jobs and says he is filling in his time with such elevating jobs as steam fitter and plumber. — A. Doe is superintendent of shops at the University of Texas and is looking for any stray 1920 men around that district. — Ken Roman is working in Nashua, N. H., for the time being with the Lockwood-Greene & Company.

L. D. Wilson is in Roanoke, Virginia, working for the Norfolk and Western Railroad as the chief engineer's assistant, in the construction of an immense round-house, machine shop, power house, and a two-million-gallon reservoir, besides relaying all the tracks in the freight yeard.

Dave Fisk is at present staying in Chicago taking a vacation but expects to be a working man soon. — Dawson, Bocher, Jackson and Musnitsky are also in Chicago drafting for the Sanitary District. — H. O. Davidson is working for the Ralston Purina Company in St. Louis as assistant to the general superintendent, having a job that he well deserves. — C. B. Stanwood is in Norwich, Connecticut, with the United States Finishing Company. — Howarth Collins is also working for the United States Finishing Company in the Pawtucket branch. — Andy Anderson is back at the Stute assisting in the Civil Engineering department. — Francis Callanan is at present in Constantinople, but expects to return to the Stute. — Bob Rowe is at the Stute finishing up. — Bill Dewey is in Great Barrington, Mass., working for the B. D. Rising Paper Company. — Jimmy Wolfson is in Atlantic City, N. J., working as production engineer on a large hotel project. He says the "picking on the board walk" is good. — Ed Coughlin is in Schenectady, N. Y., working for the General Electric Company as a draftsman. — Jack Coyle is working for Billings & Spencer Company in Hartford, Connecticut, travelling from one apartment to another at a very fair rate of speed and hasn't been shown the gate yet. — Harold Merriam is with the Liberty Mutual Insurance Company in Boston, working as an inspection engineer. — Harold Bibber is in France as an exchange instructor in the Ecole Centrale in Paris. — Fred Gill is with Kendall Taylor & Company in Boston working on hospital

planning. — Henry Simms is on the staff of the Rockefeller Institute, doing research work. — Joe Hennessy is in Massillon, Ohio, working for the National Pressed Steel Company. — Mike Newhall is in Trion, Georgia, surveying the said town and may go to South Carolina soon. He wants to hear from you Tub Spencer, so let us know your whereabouts.

Jack Lucas is working for Jackson & Morland, engineers, in Boston, living at home and having, in his words, "a helluva good time." — K. B. White is in South Manchester, Connecticut, working as a time study man in a silk concern. He is also leading a good social life. — Arthur Merriman is in Schenectady, N. Y., working in the radio department of the General Electric Company. — The Nebolsine brothers are pursuing a course at the Harvard Engineering School and their future plans are hazy. — Bob Aborn and Bill Barron are working in the blast furnace department at the Bethlehem Steel Co. — Skeets Brown and Clarence Syner are in Bay Horse, Idaho, working in the mines. — Snug Etter is in Boston working for Stone & Webster, as is also "Pierpont" Morgan. — Larry Boyden is in Gloversville, N. Y., working as a chemist for the Milligan & Higgins Glue Company. — Norrie Abbott is back at the Institute putting the finishing touches on his course, as is also Pete Ryer. — Jimmy Gibson, Heinie Haskell, Dolly Gray and Perk Bugbee are in New Kensington, Pa., working for the United States Aluminum Company. — Harold Bugbee and Al Burke are in Boston working for the United Drug Company. — Jack Molen is at present leading the high life in Boston and incidentally having his last long vacation.

This comprises all the dope I could get together of our crowd. By the time the REVIEW comes out again I hope to hear from many more of the gang. I myself am working for the Underwriters Bureau of New England as an inspection engineer and if any of the gang are ever around Boston I would be glad to hear from them.

Congratulations to you, Heinie Haskell, on your article in the *Industrial Management*.

I wish that it were possible for me to answer personally all the letters that you fellows write to me, but you can easily see that this is out of the question. Nevertheless I wish each and every one of you the best of success in your work. With your hearty co-operation, I will do my best to keep 1920 in the limelight. Don't forget the phrase that we are going to hand on to all our classmates and that is "write to Ken Akers." That must be our by-word until another man takes the helm. With best wishes to you all.